Workshop on Using "Student Option Programme" (SOP) for SS Timetabling [Refreshed]

Curriculum Development Institute

12 May 2023

Programme

Time	Programme	Facilitator/ Speaker
15:00 – 15:30	Introduction Demonstration of how to use SOP	CDI Officers, EDB
15:30 – 16:00	Hands-on practice in using SOP	
16:00 – 16:05	Break	
16:05 – 16:25	Strategies for handling special cases School-based practices of elective subject allocation & timetabling	CDI Officers, EDB
16:25 – 16:55	Sharing of good practices in using SOP	Mr Chan Pun Tak, King's College
16:55 – 17: 00	SOP 2.0	CDI Officers, EDB
17:00 – 17:30	Q & A Group Interaction - Feedback collection on SOP	

Background

Rationale for the design of SOP

- Student Option Programme (SOP) has been developed to assist schools in designing their block timetables and assigning elective subjects to students that can maximise the satisfaction rate of students' choices under various schools' physical constraints and resources limitation.

Background

Professional Development Programmes for Teachers

- 49 workshops were conducted on using the SOP from 2008 to 2022.
- More than 1,000 participants have attended the workshop.

Enhancement of SOP

- In response to the feedback collected during the workshops, CDI prepared an upgraded version of the SOP with enhanced features.
- The upgraded SOP (Version 1.2.1) was released in March 2023 to enhance the compatibility of SOP with the new MS Windows and MS Office versions. The .NET Framework of SOP was updated from version 2.0 to 4.8.

Workshop on Using Student Option Programme (SOP) for SS Timetabling

User Guide

Introduction

The Student Option Programme (SOP) is a timetabling tool that assists schools in designing their block timetables and assigning elective subjects to S4 students so as to maximise the satisfaction rate of students' choices under schools' various constraints. It also helps schools to print students' individual timetables incorporating the timetabling results generated by WebSAMS Timetabling (TTL).

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Important Notices

Student Option Programme

Download

Student Option Programme

Download	Size	Date
Setup File for Version 1.2.1 Update	[illegible]MB	Click here
User Manual for Version 1.2.1 Update	12MB	3 March 2023
Hands-on Practice (with Demo)	134MB	26 April 2022

Reference Materials

FAQs

Useful Techniques : Examples of School Practices

Programme for Online Student Option Survey

Download	Size	Date
Setup File	172KB	26 June 2013
User Manual	4MB	3 June 2009

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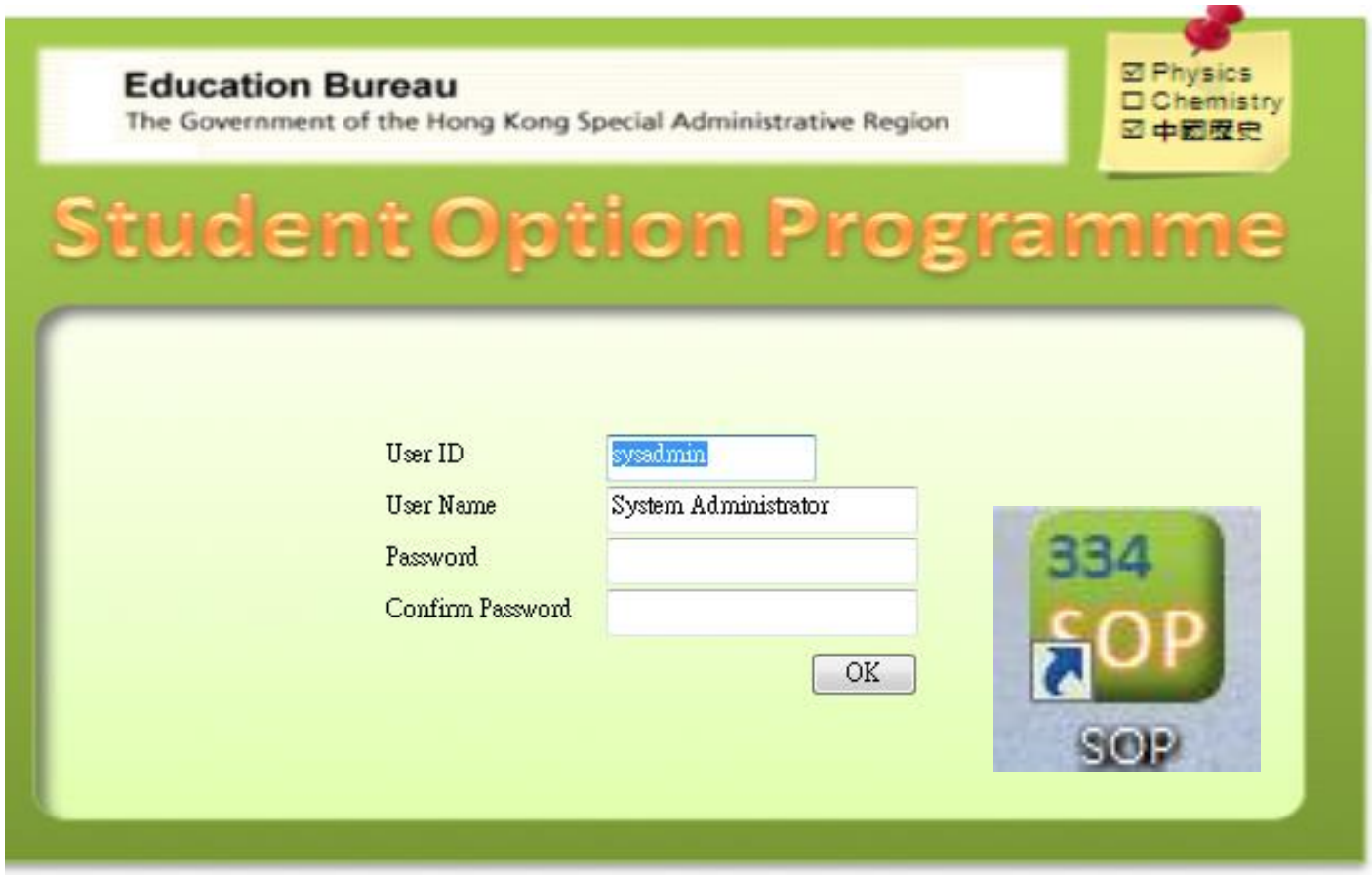
Installation

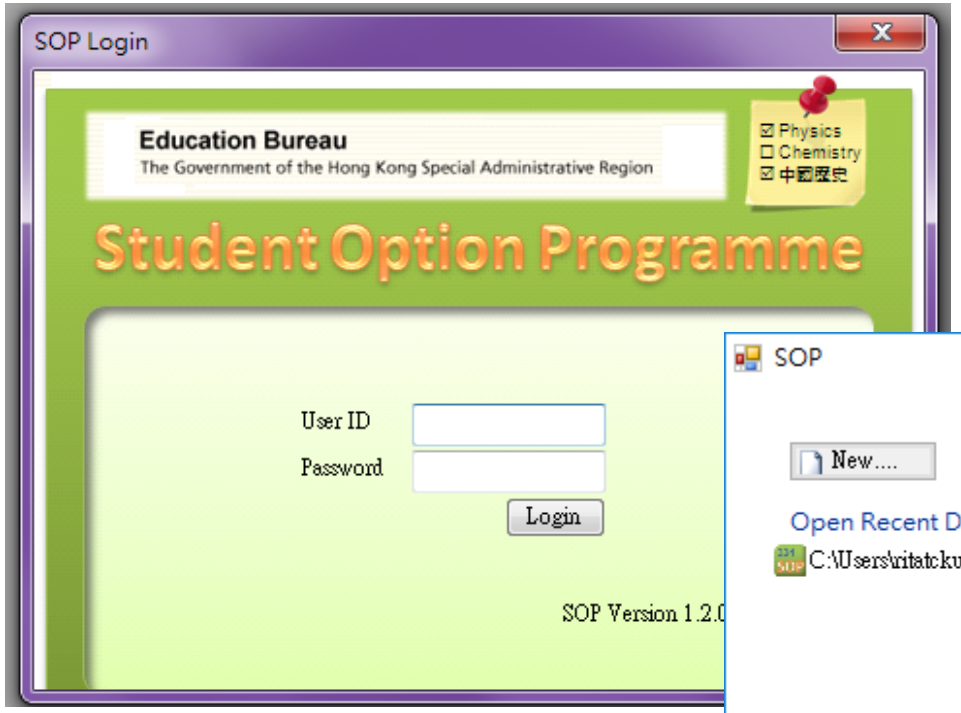
To install the SOP

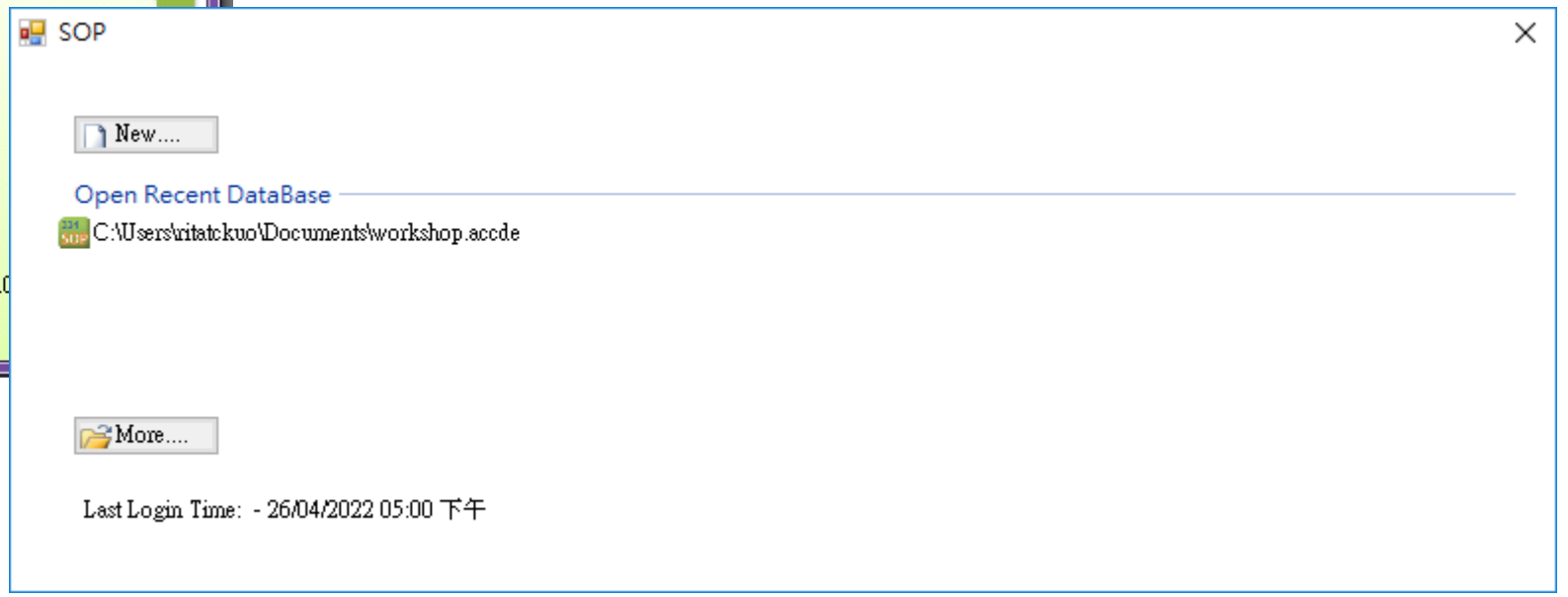
For MS Office 64-bit version users

Installation



Login



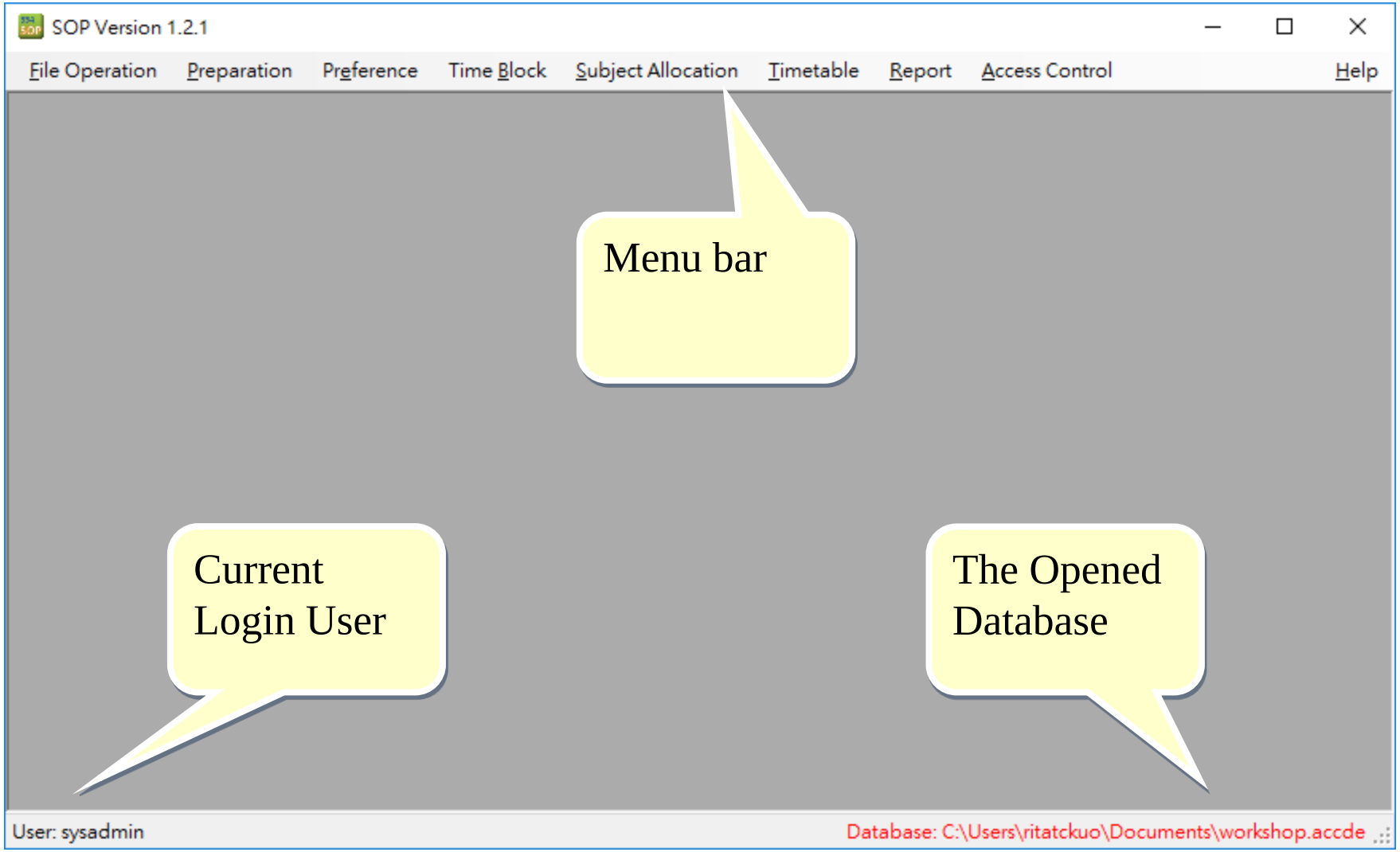


Current State

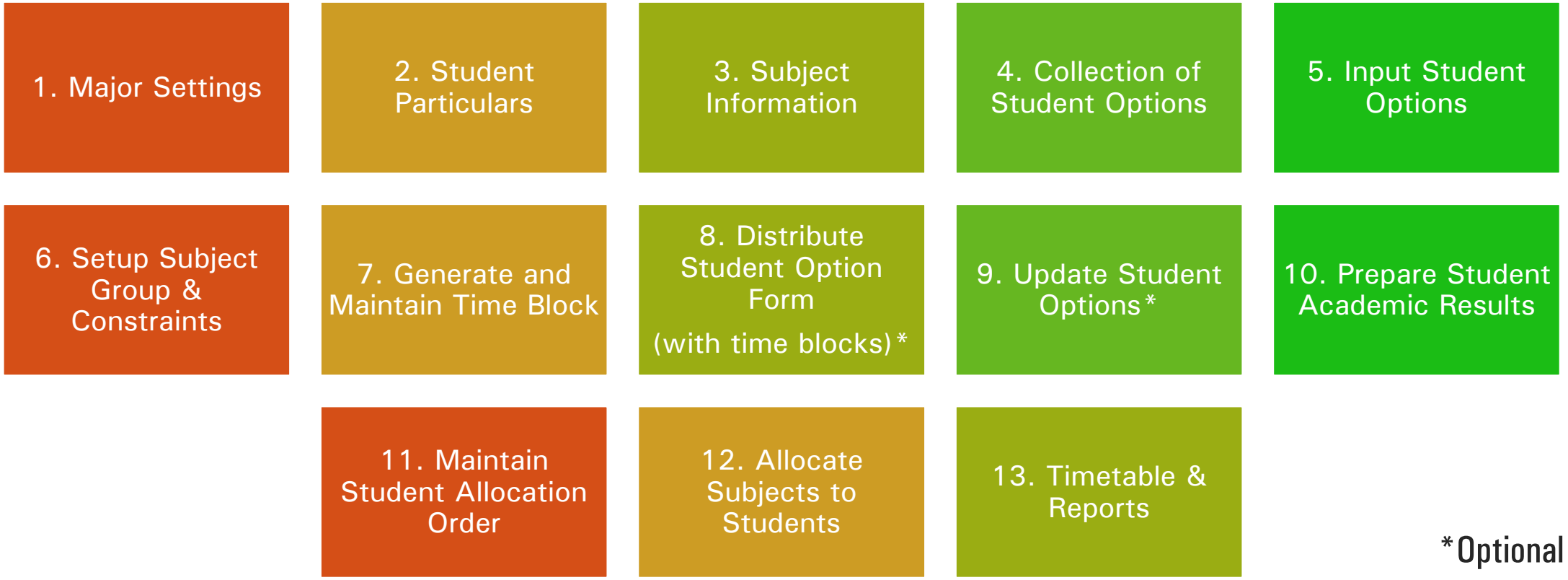
Student Preference	In Progress
Time Block Generation	Completed
Student Allocation	In Progress

Close

Interface

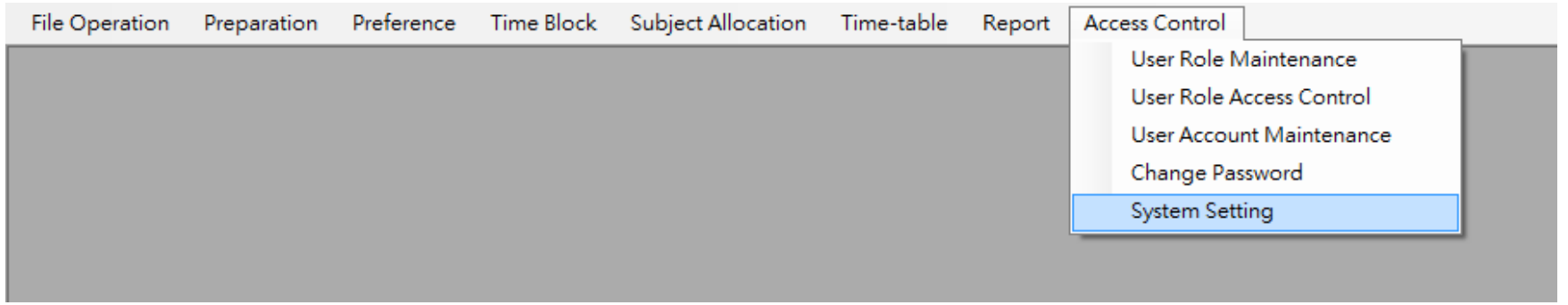

SOP Version 1.2.1
File Operation
Preparation
Preference
Time Block
Subject Allocation
Timetable
Report
Access Control
Help
Menu bar
Current Login User
The Opened Database
User: sysadmin
Database: C:\Users\ritatckuo\Documents\workshop.accde

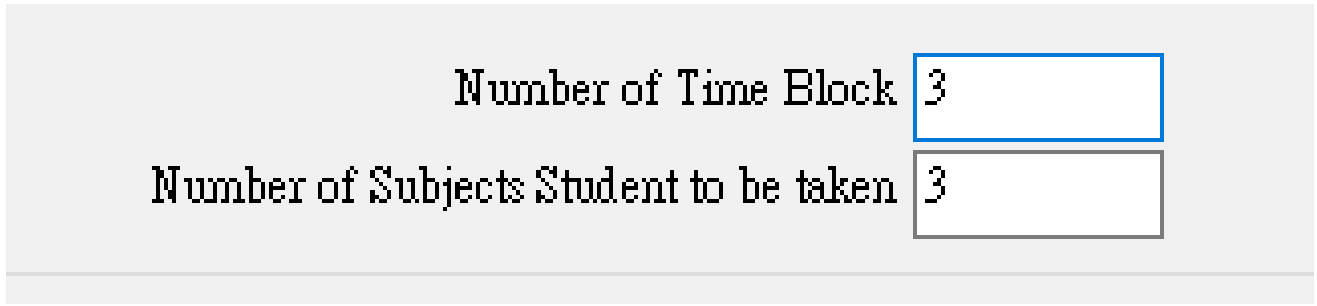
Workflow



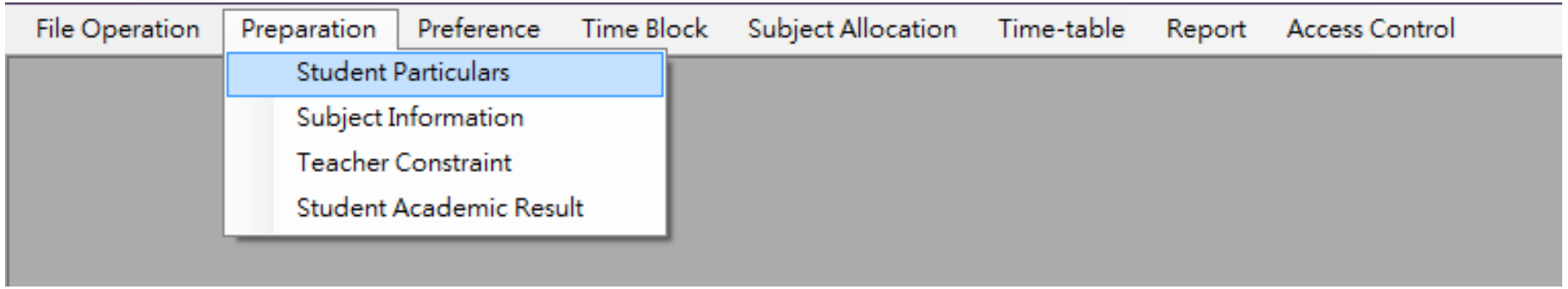
*Optional

1. Major Settings





2. Student Particulars



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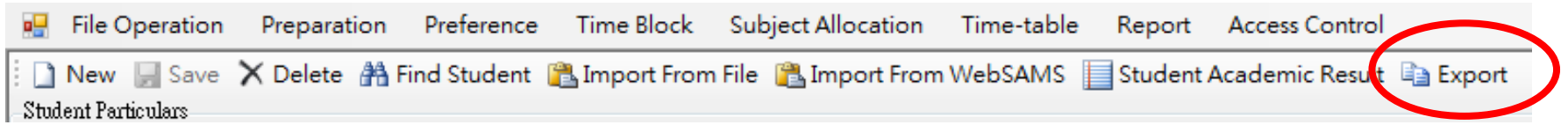

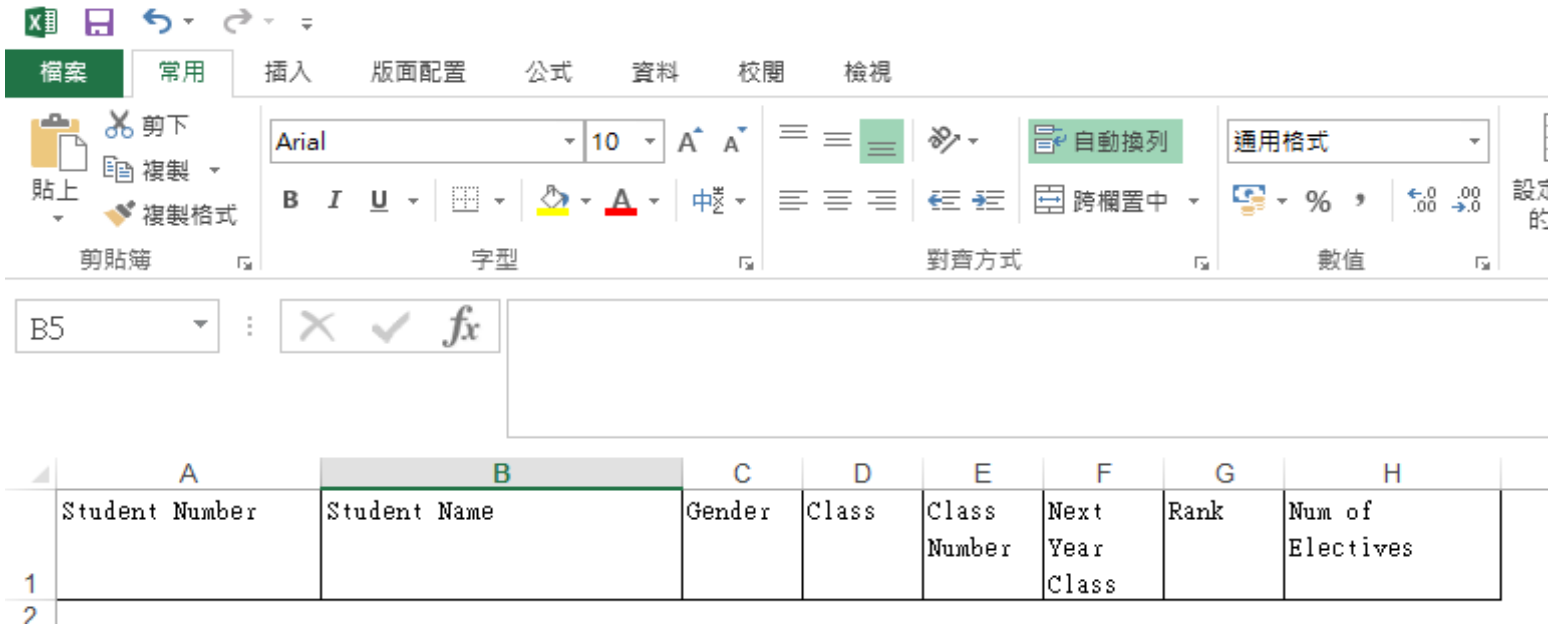

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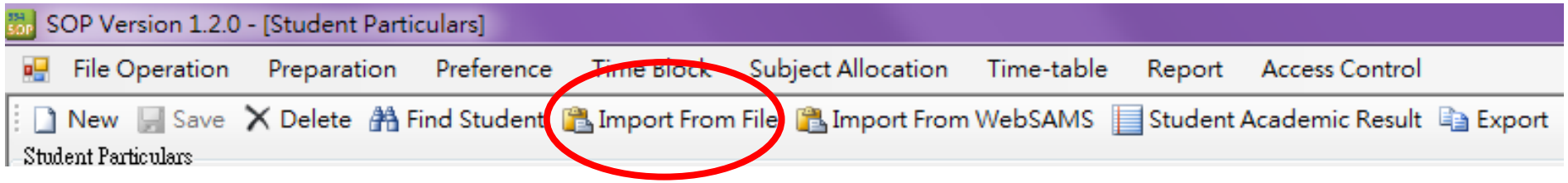

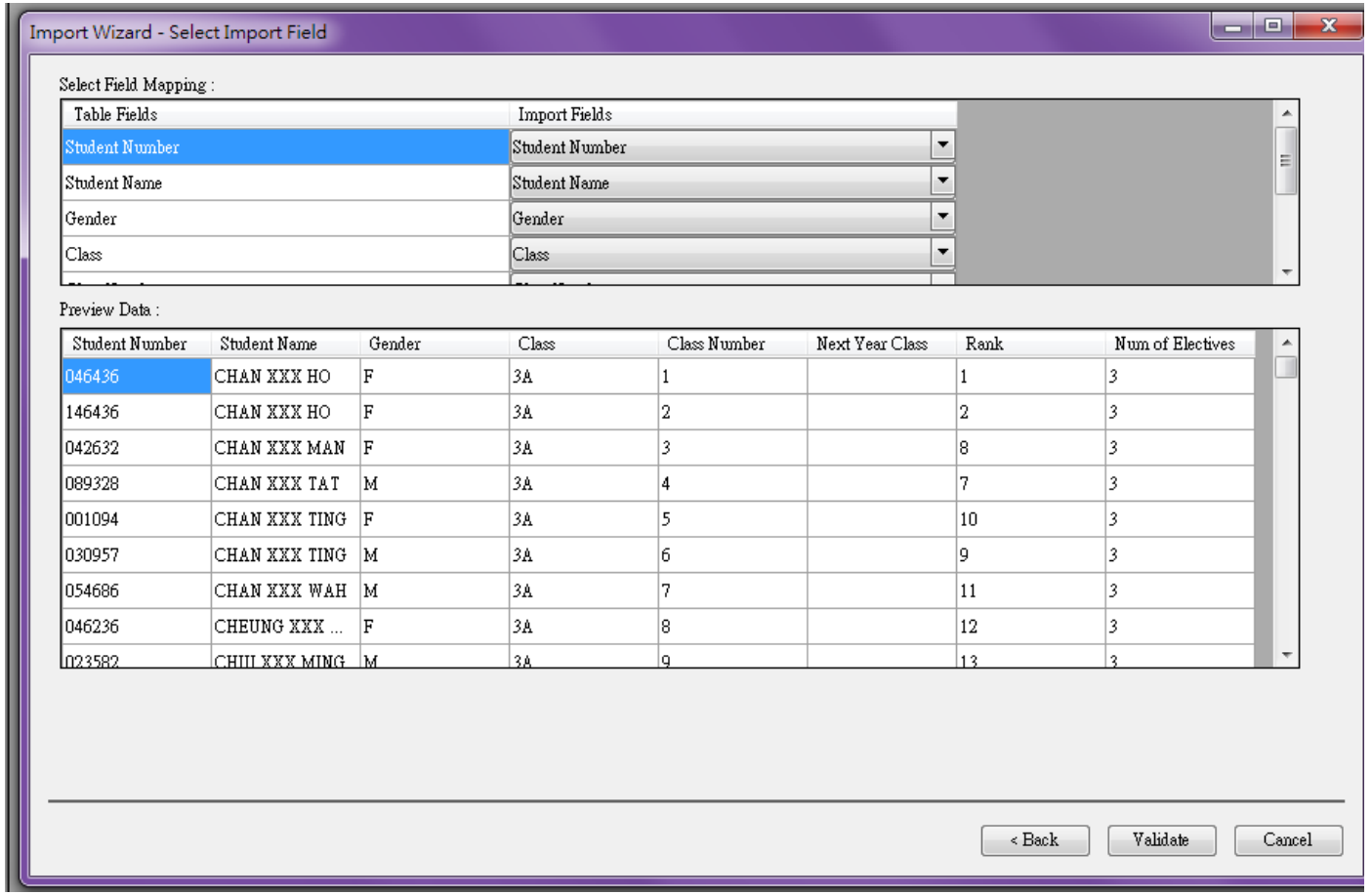

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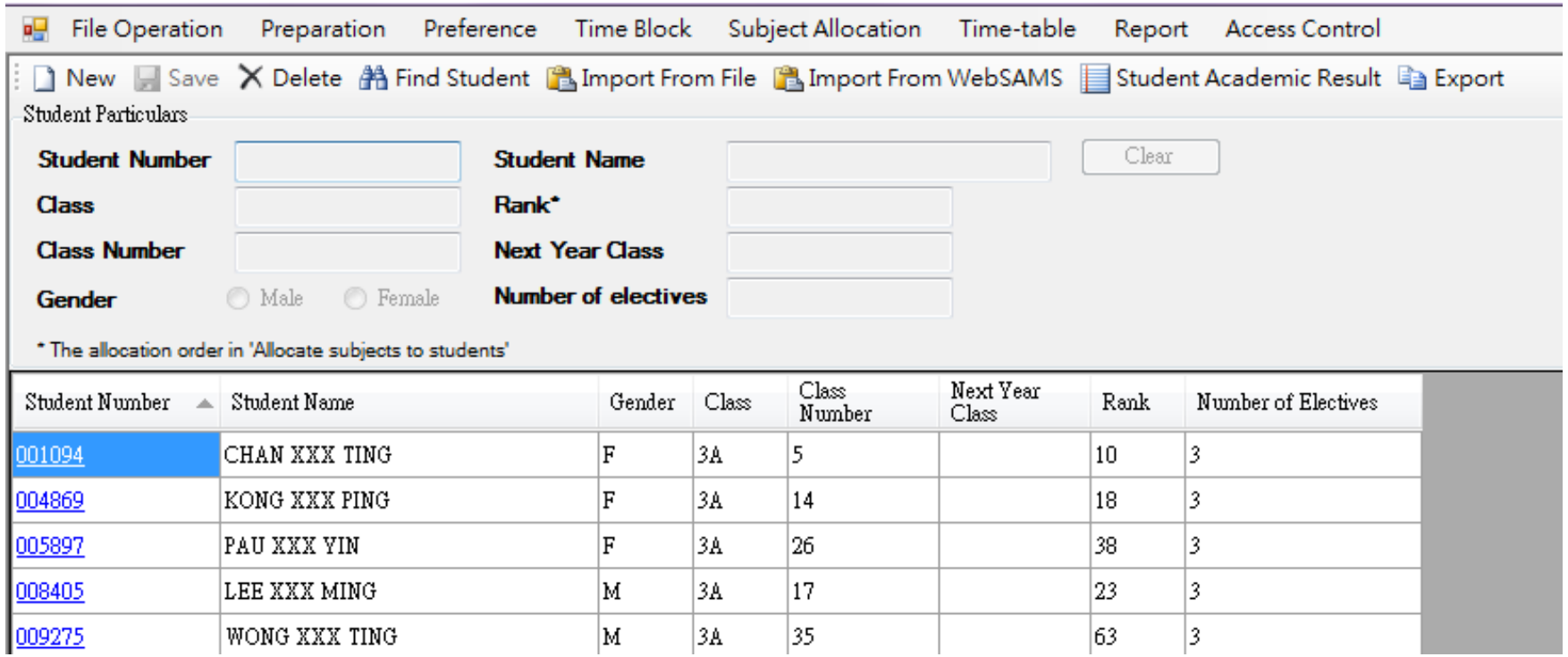
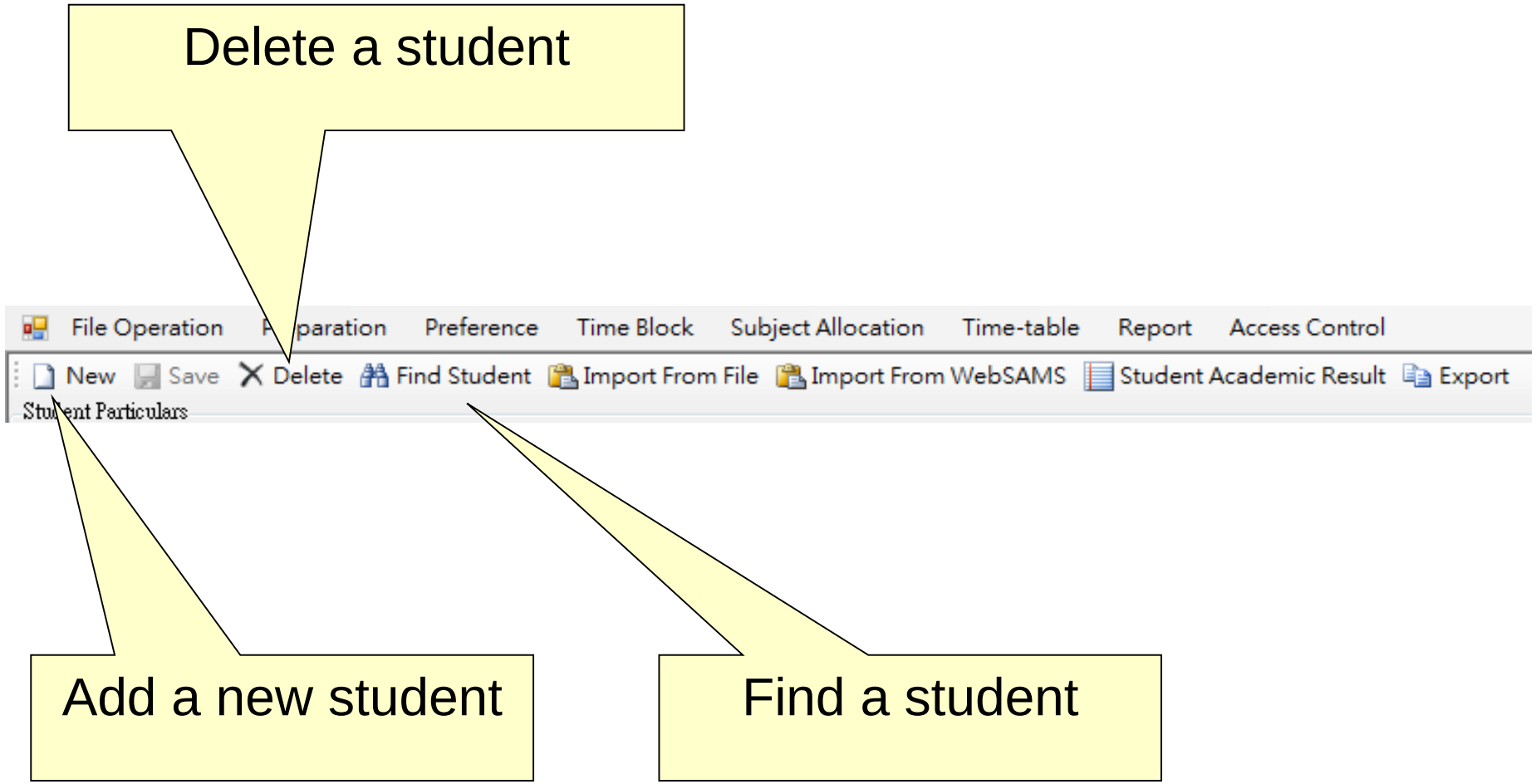
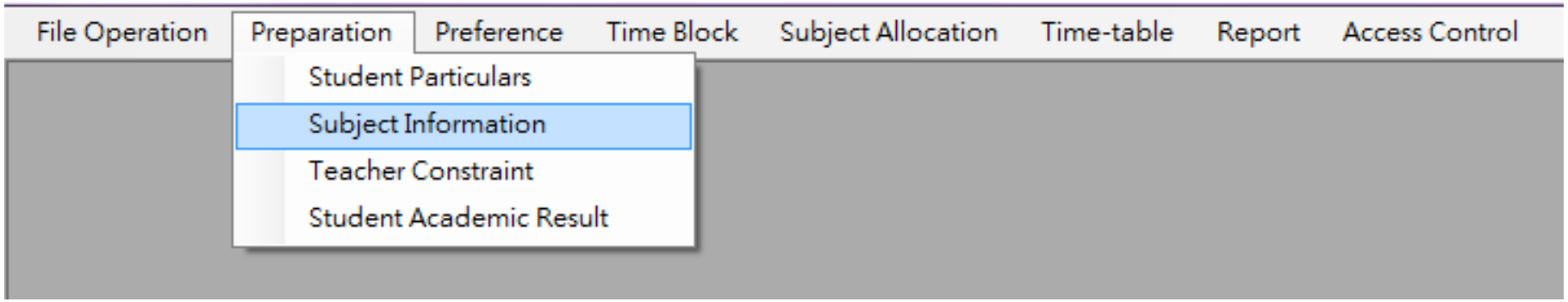


Student Number	Student Name	Gender	Class	Class Number	Next Year Class	Rank	Number of Electives
001094	CHAN XXX TING	F	3A	5		10	3
004869	KONG XXX PING	F	3A	14		18	3
005897	PAU XXX YIN	F	3A	26		38	3
008405	LEE XXX MING	M	3A	17		23	3
009275	WONG XXX TING	M	3A	35		63	3

2. Student Particulars



3. Subject Information



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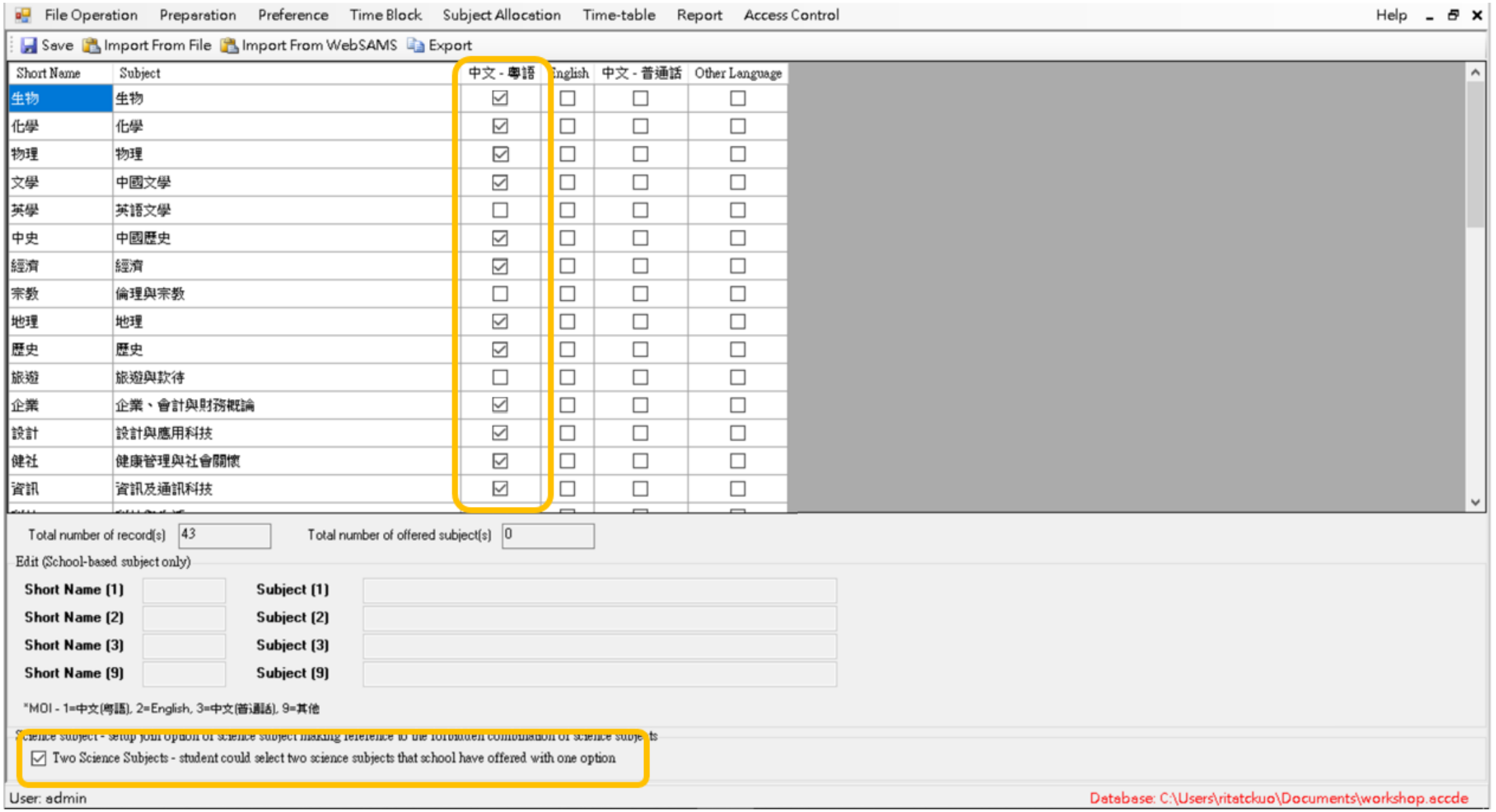
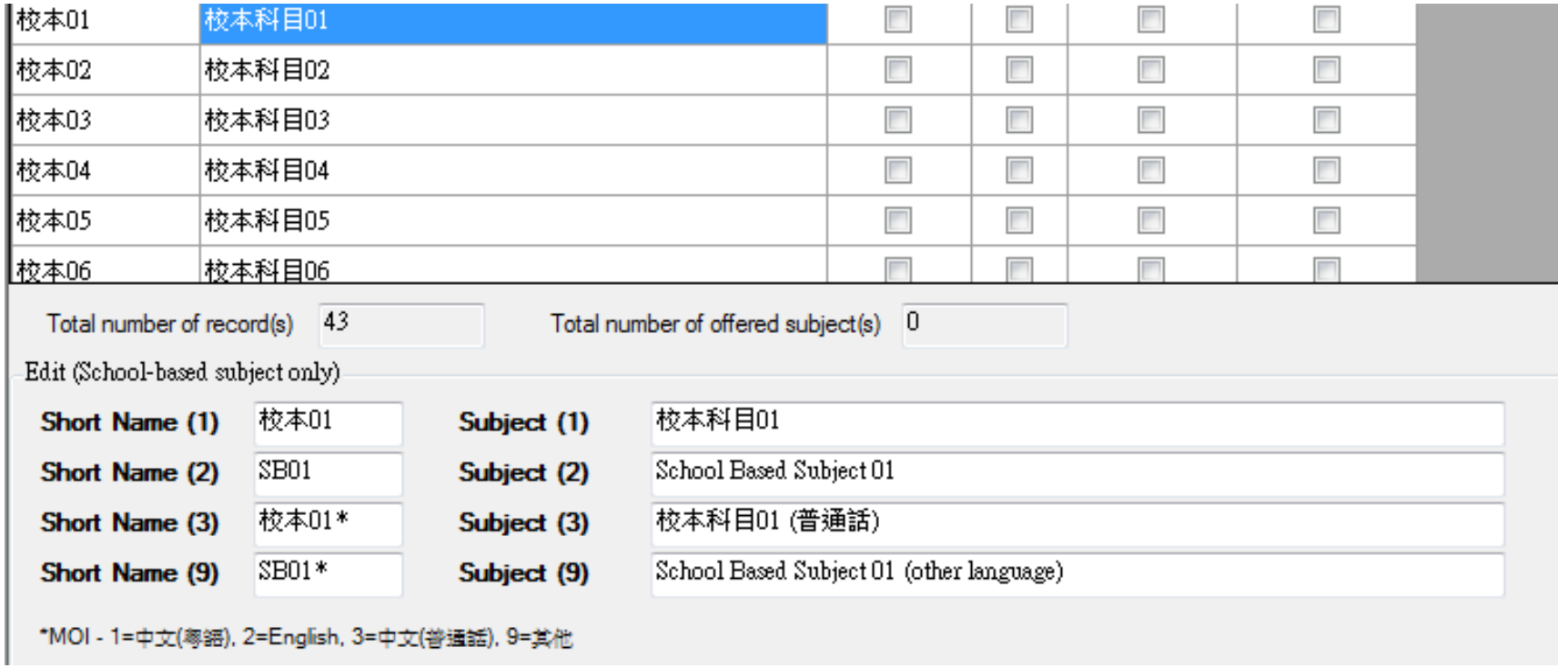


3. Subject Information

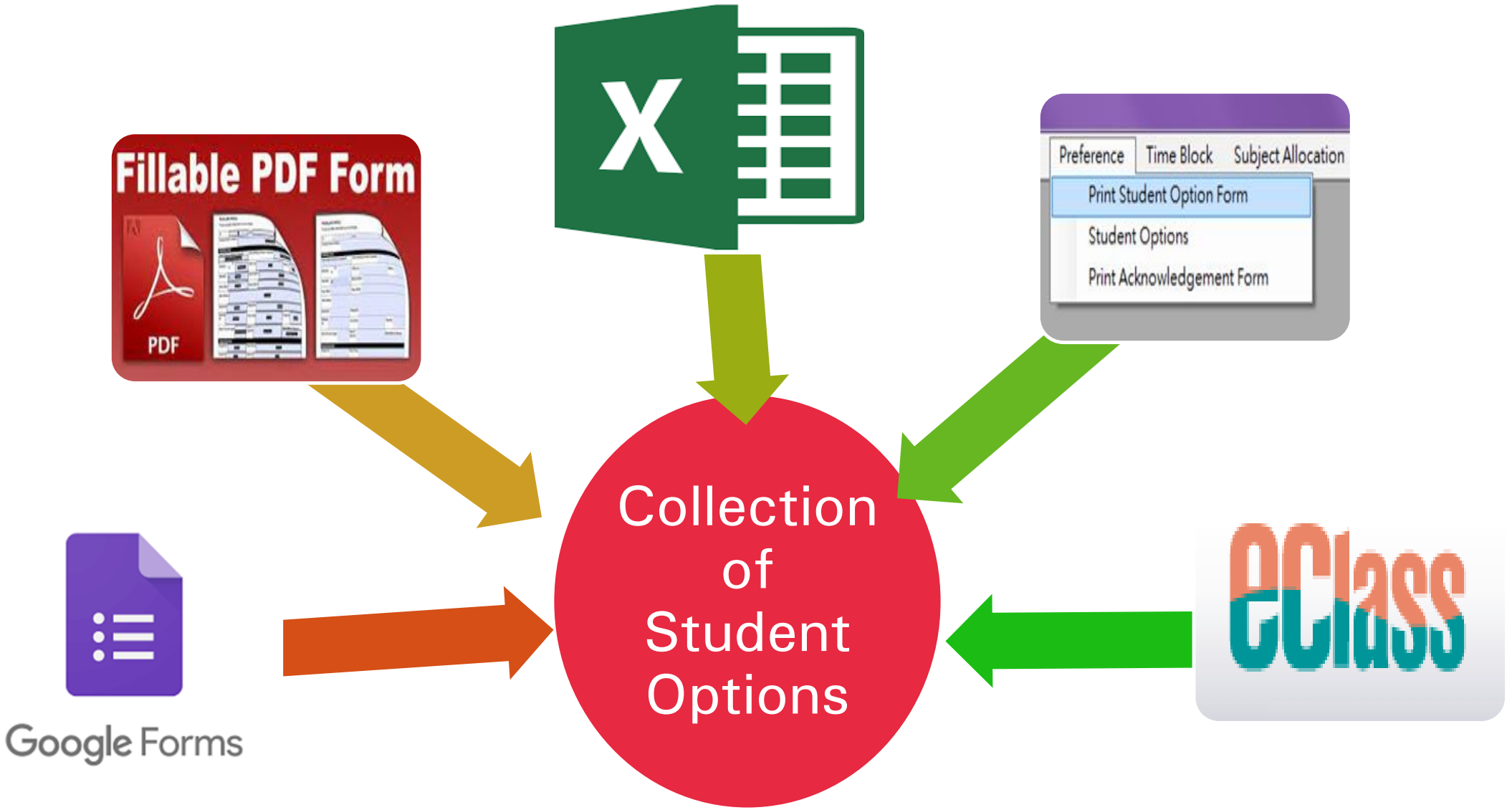
生物 + 化學
生物 + 物理
化學 + 物理

Choices of “Two Science Subjects”

3. Subject Information



4. Collection of Student Options



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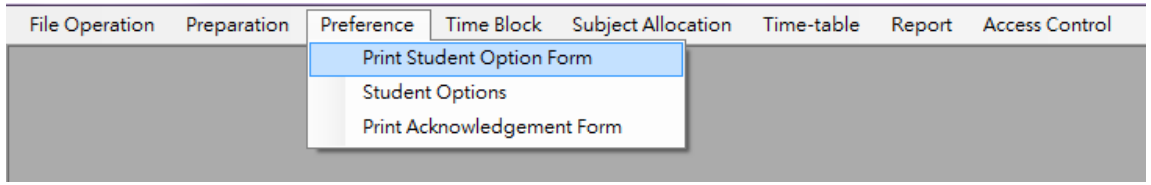
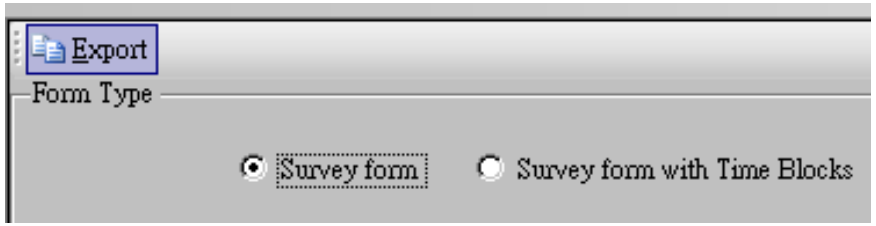




S4 Student Option Form

A student should fill numbers in this form indicating his/her order of preference. ("1" means the elective subject that he/she likes best.) If a student wants to study 2 science subjects, he/she should write the order of preference in the "Two Science Subjects" of the table on the left, and fill in the order of preference of the 2 science subjects in the table on the right. If the 2 science subjects cannot be allocated due to shortage of places or whatsoever reason, the school will allocate 1 science subject to the student in accordance with his/ her options in the table on the right.

Selected Option	
Offer	Order
Two Science Subjects	
生物	
化學	
物理	
文學	
中史	
經濟	
地理	
歷史	
企會	
設計	
健社	
資訊	

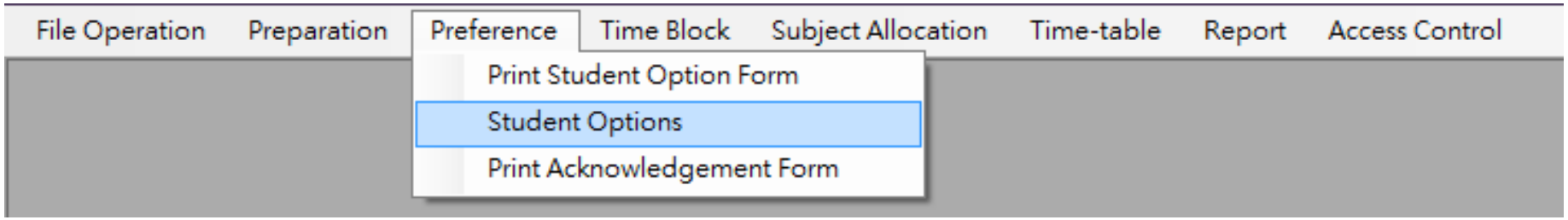
Order of two science subjects (Input order of two science subjects only when a student has chosen 2 science subjects in his/her selected option.)	
Offer	Order
生物 + 化學	
生物 + 物理	
化學 + 物理	
生物	
化學	
物理	

Student Name: _____ Class: _____ Class No.: _____

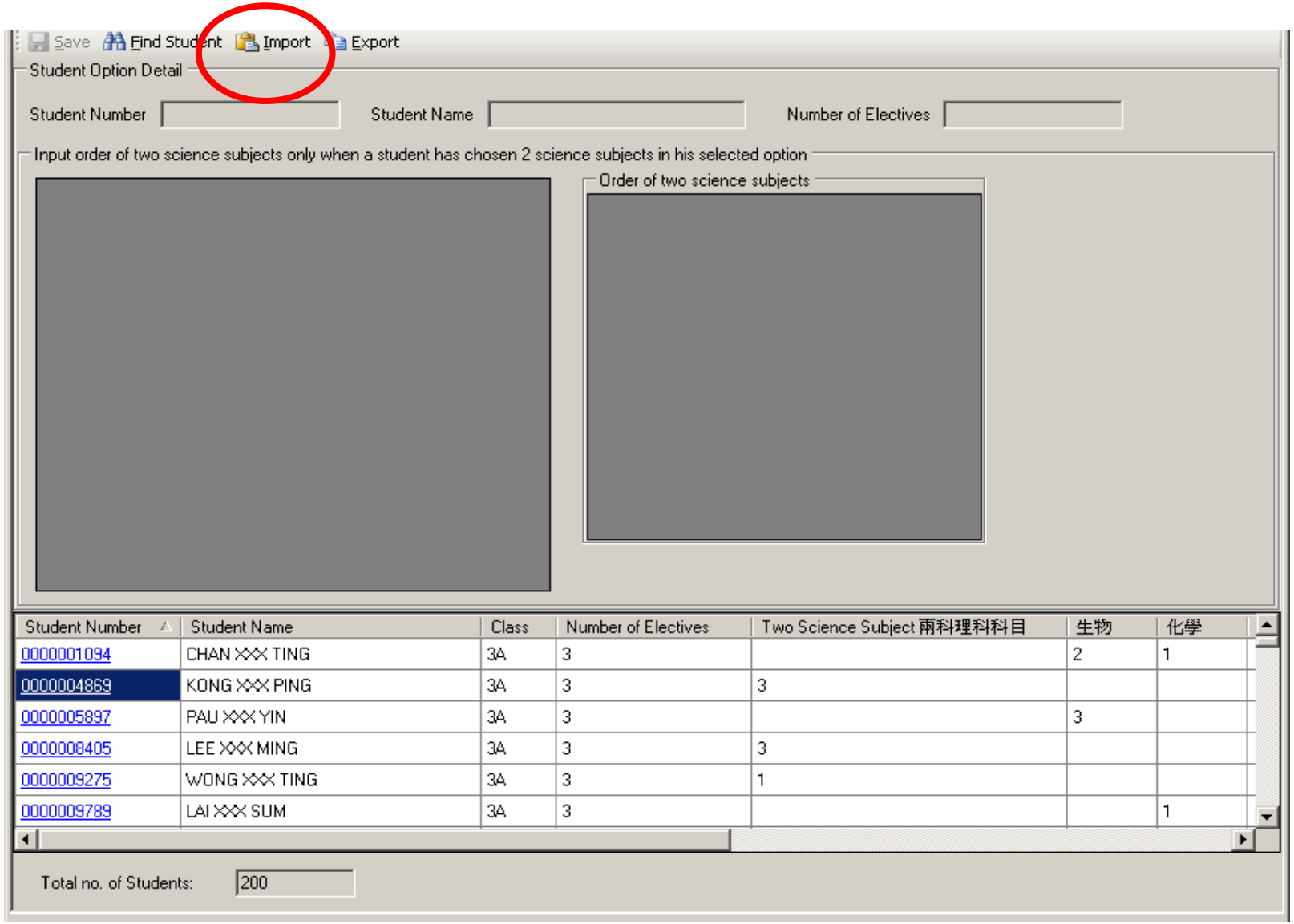
Parent's Signature: _____ Parent's Name: _____ Date: _____

(Please return the completed S4 Student Option Form to the class teacher on or before (date).)

5. Input Student Options



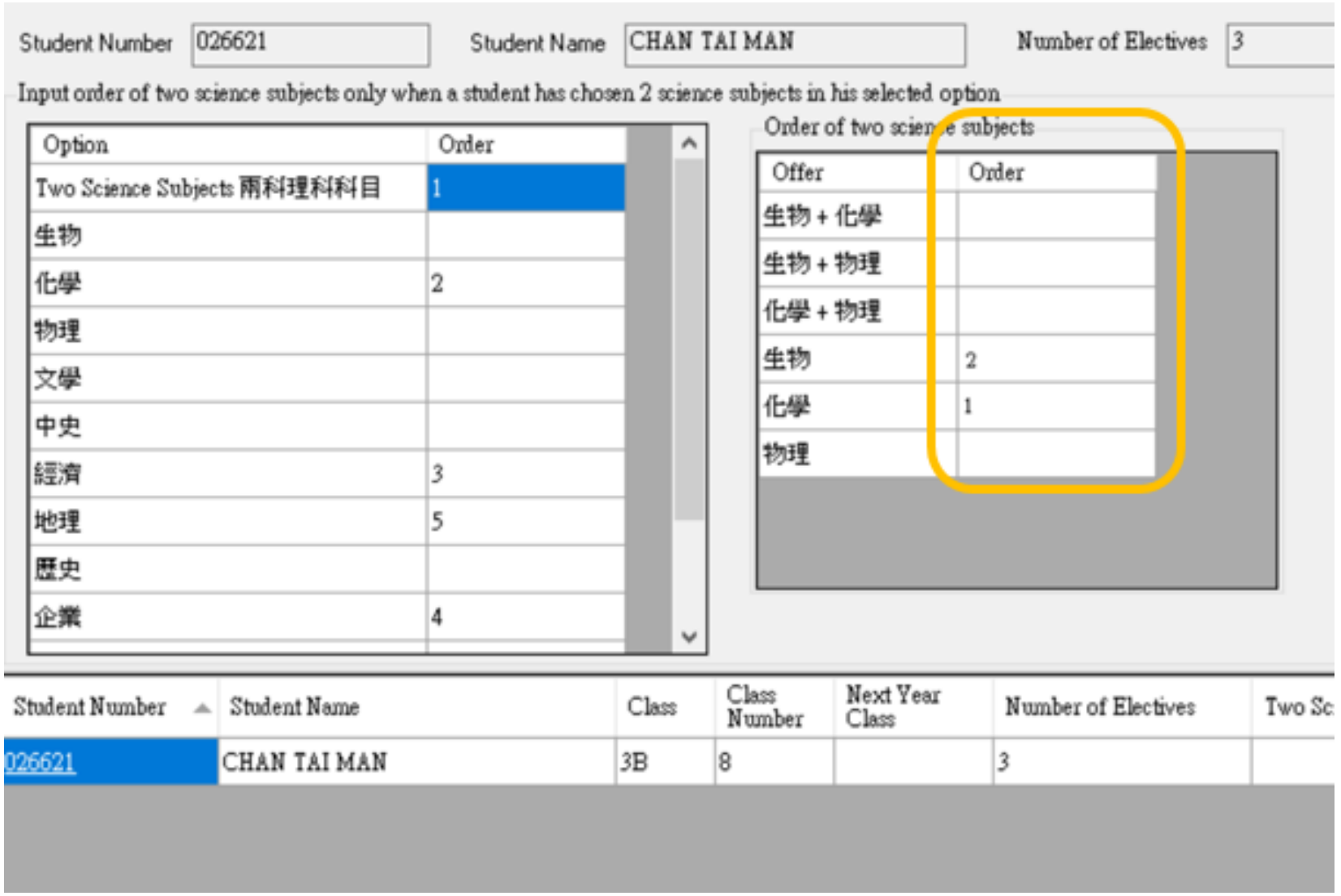
5. Input Student Options



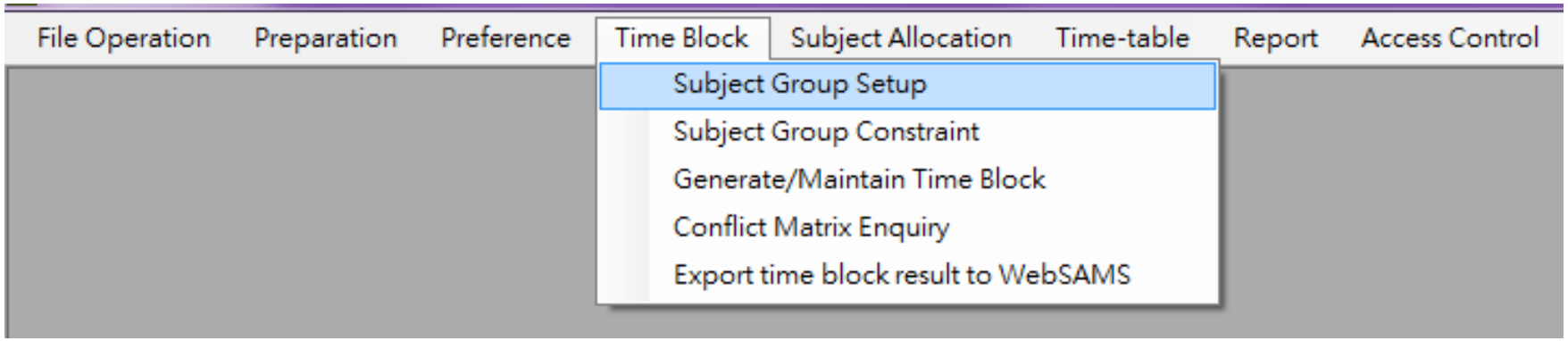
5. Input Student Options

	A	B	C	D	E	F
1	Student Number	Student Name	2Sci	BIO2	CHEM2	PHY2
2	3A01	stud001	7	5	2	1
3	3A02	stud002	2	9	8	10
4	3A03	stud003		1	2	5
5	3A04	stud004		8	7	
6	3A05	stud005		6	3	5
7	3A06	stud006		7	1	6
8	3A07	stud007		5	3	6
9	3A08	stud008	10	1	3	5
10	3A09	stud009		6	1	2
11	3A10	stud010		10	8	3
12	3A11	stud011		1	2	3
13	3A12	stud012	10	2	1	4

5. Input Student Options



6. Setup Subject Group & Constraints

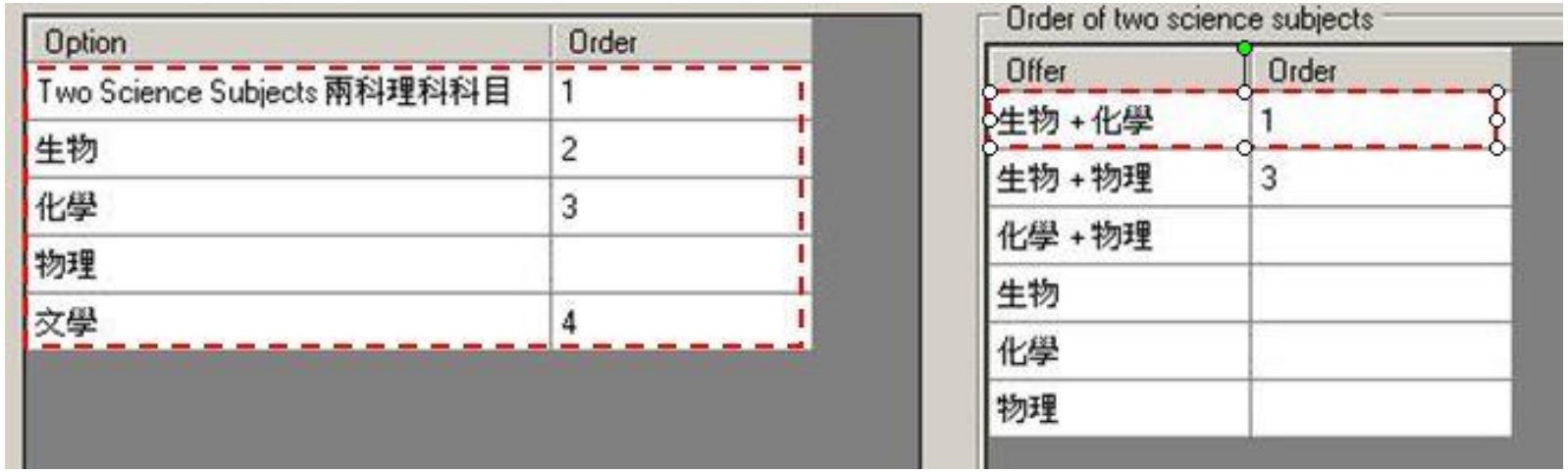


6. Setup Subject Group & Constraints

Subject Group Setup Table

Subject	Max Size	No. of Groups	NOR*	1	2	3	4	5	6	Total
生物	40	2	36	3	15	17	13	17	21	86
化學	40	2	36	15	7	16	11	14	23	86
物理	40	2	33	12	5	17	16	18	12	80
文學	40	1	66	24	19	23	18	23	11	118
中史	40	1	11	2	4	5	10	13	13	47
經濟	40	2	73	29	32	11	25	19	17	133
地理	40	1	79	30	31	18	24	24	22	149
歷史	40	1	69	21	25	23	23	13	27	132
企業	40	2	91	30	32	28	19	13	27	149
設計	40	1	17	1	8	8	14	6	7	44
健社	40	1	22	8	2	12	11	17	8	58
資訊	40	2	67	25	20	22	16	23	11	117

Subject Group Setup - NOR



Option	Order
Two Science Subjects 兩科理科科目	1
生物	2
化學	3
物理	
文學	4

Order of two science subjects

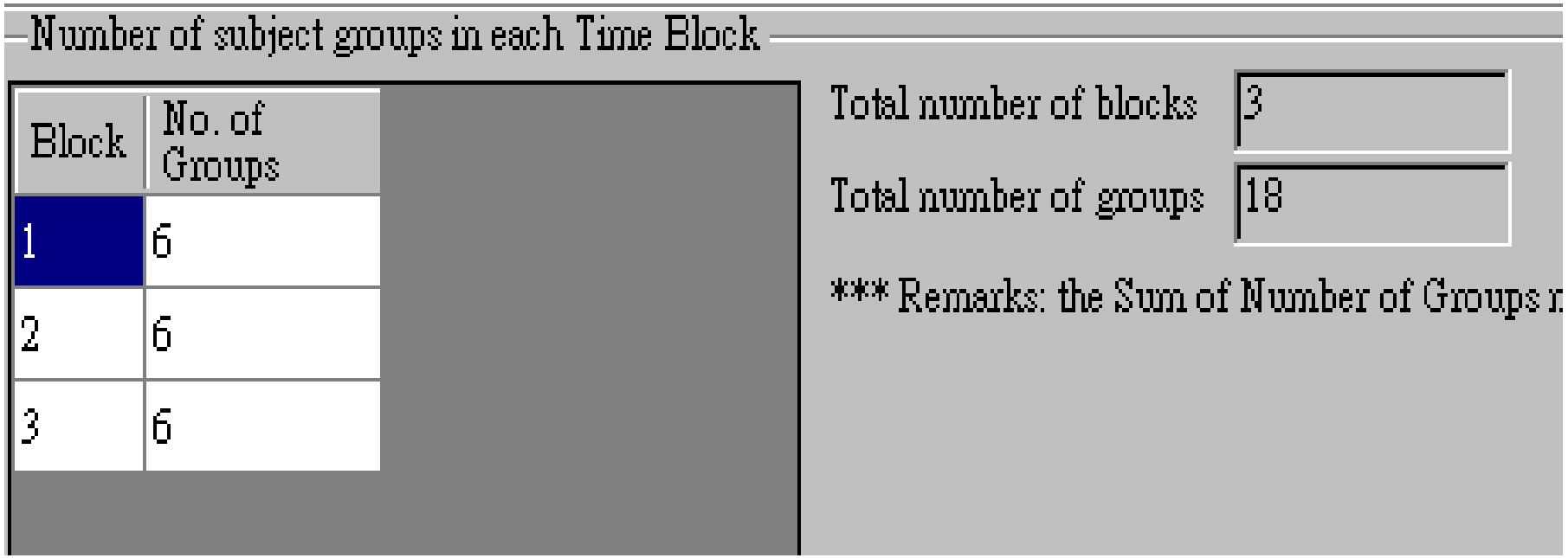
Offer	Order
生物 + 化學	1
生物 + 物理	3
化學 + 物理	
生物	
化學	
物理	

- The best allocation result of this student should be “生物”, “化學” and “文學”

Subject Group Setup Table

Subject	Max Size	No. of Groups	NOR*	1	2	3	4	Total
生物	40	0	1	1	1	0	0	2
化學	40	0	1	1	0	1	0	2
物理	40	0	0	0	0	0	0	0
文學	40	0	1	0	0	0	1	1

6. Setup Subject Group & Constraints



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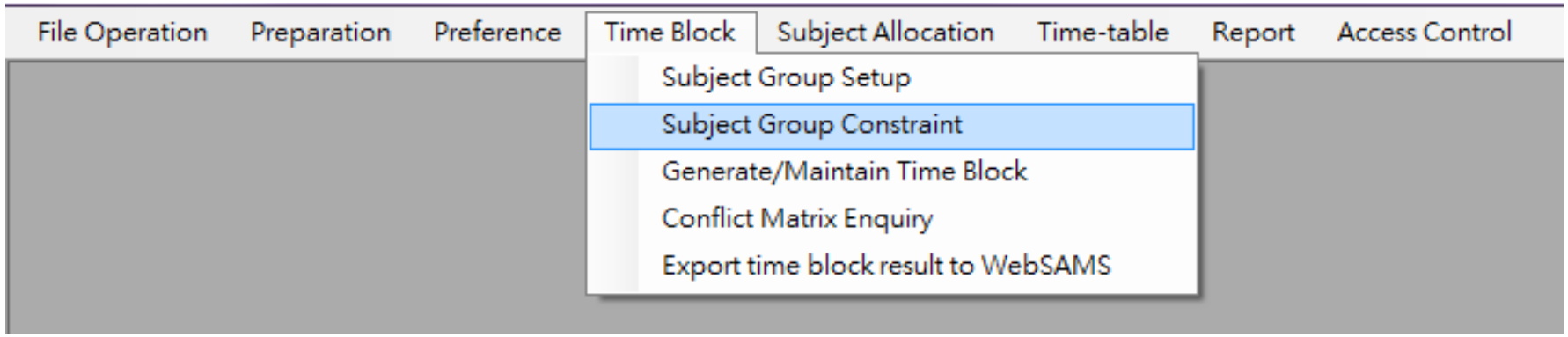

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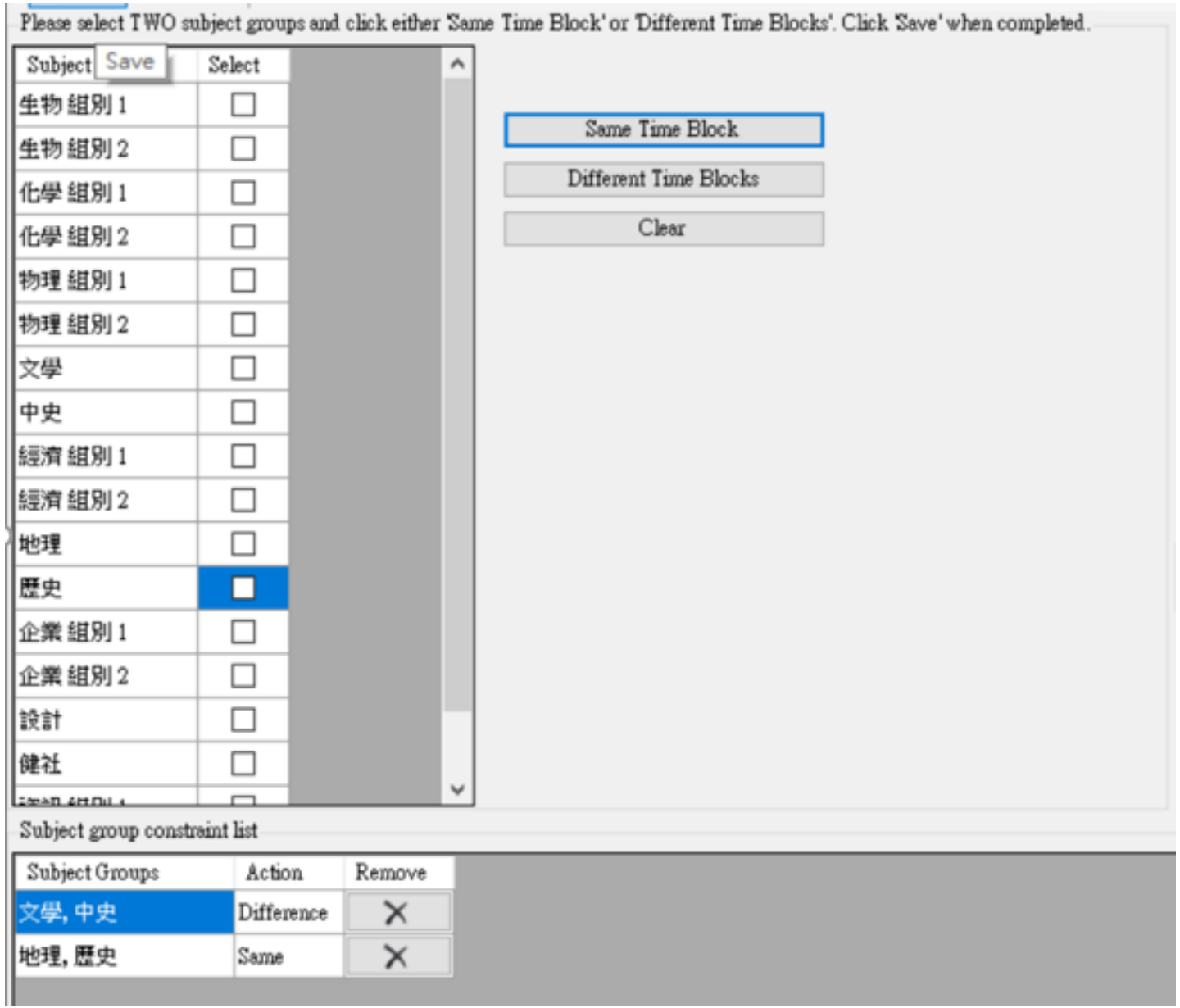
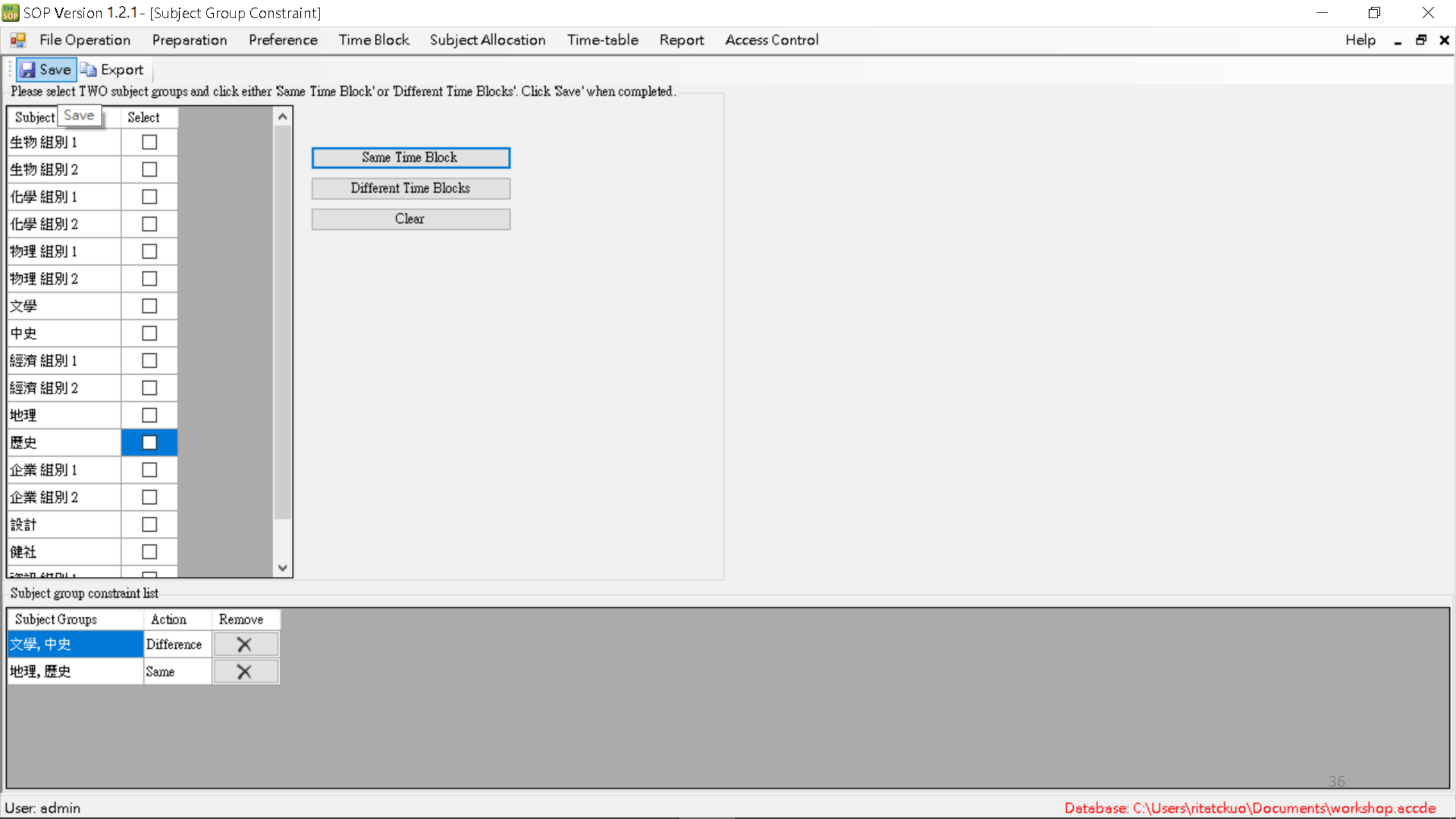
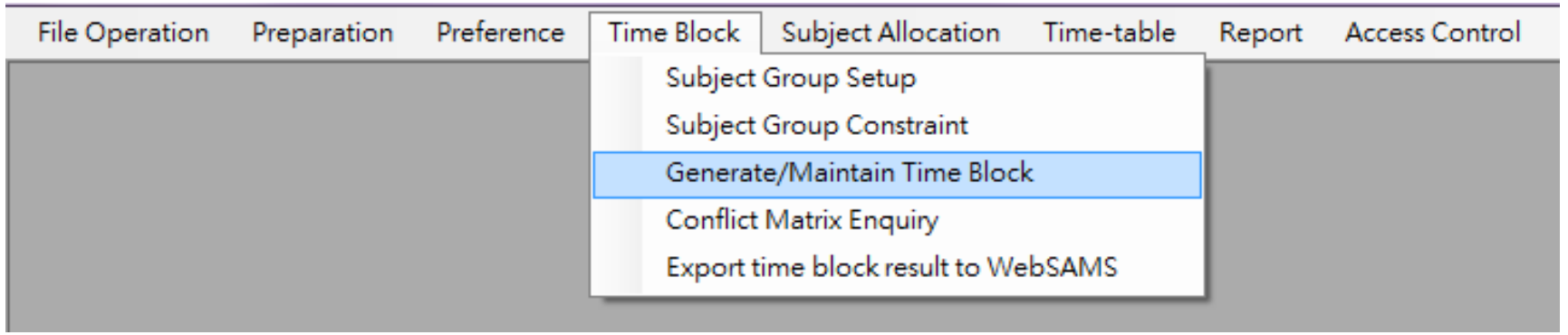
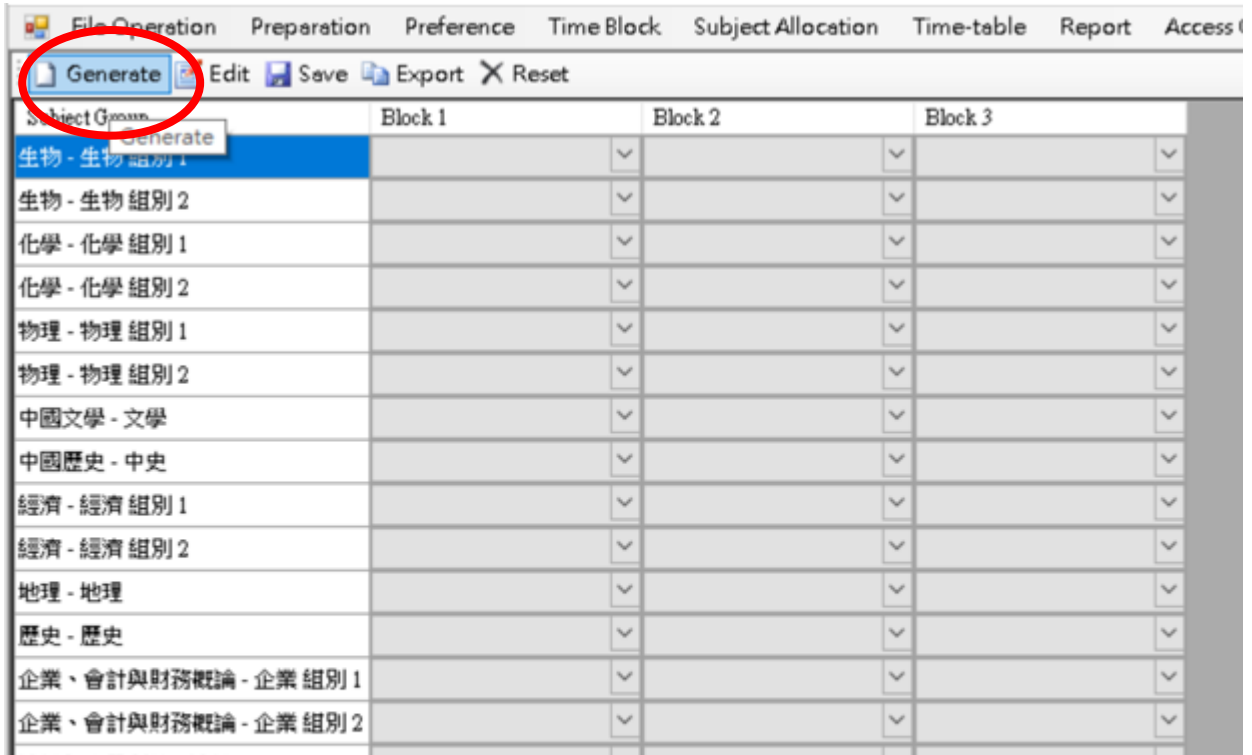


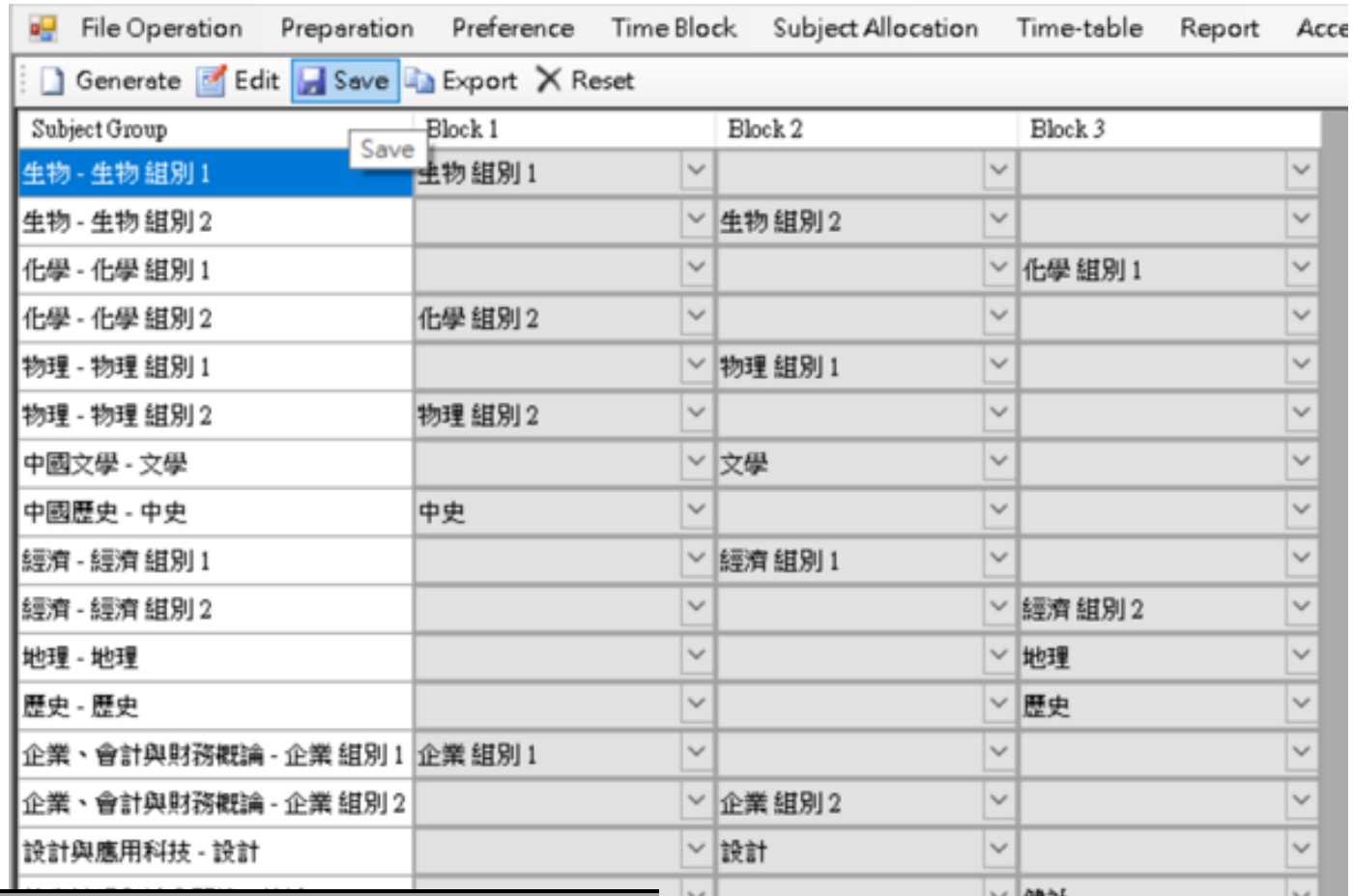

SOP Version 1.2.1 - [Subject Group Constraint]
File Operation
Preparation
Preference
Time Block
Subject Allocation
Time-table
Report
Access Control
Help
Save
Export
Please select TWO subject groups and click either 'Same Time Block' or 'Different Time Blocks'. Click 'Save' when completed.
Subject
Save
Select
生物 組別 1
生物 組別 2
化學 組別 1
化學 組別 2
物理 組別 1
物理 組別 2
文學
中史
經濟 組別 1
經濟 組別 2
地理
歷史
企業 組別 1
企業 組別 2
設計
健社
Same Time Block
Different Time Blocks
Clear
Subject group constraint list
Subject Groups
Action
Remove
文學, 中史
Difference
地理, 歷史
Same
36
User: admin
Database: C:\Users\ritatckuo\Documents\workshop.accde

7. Generate and Maintain Time Block





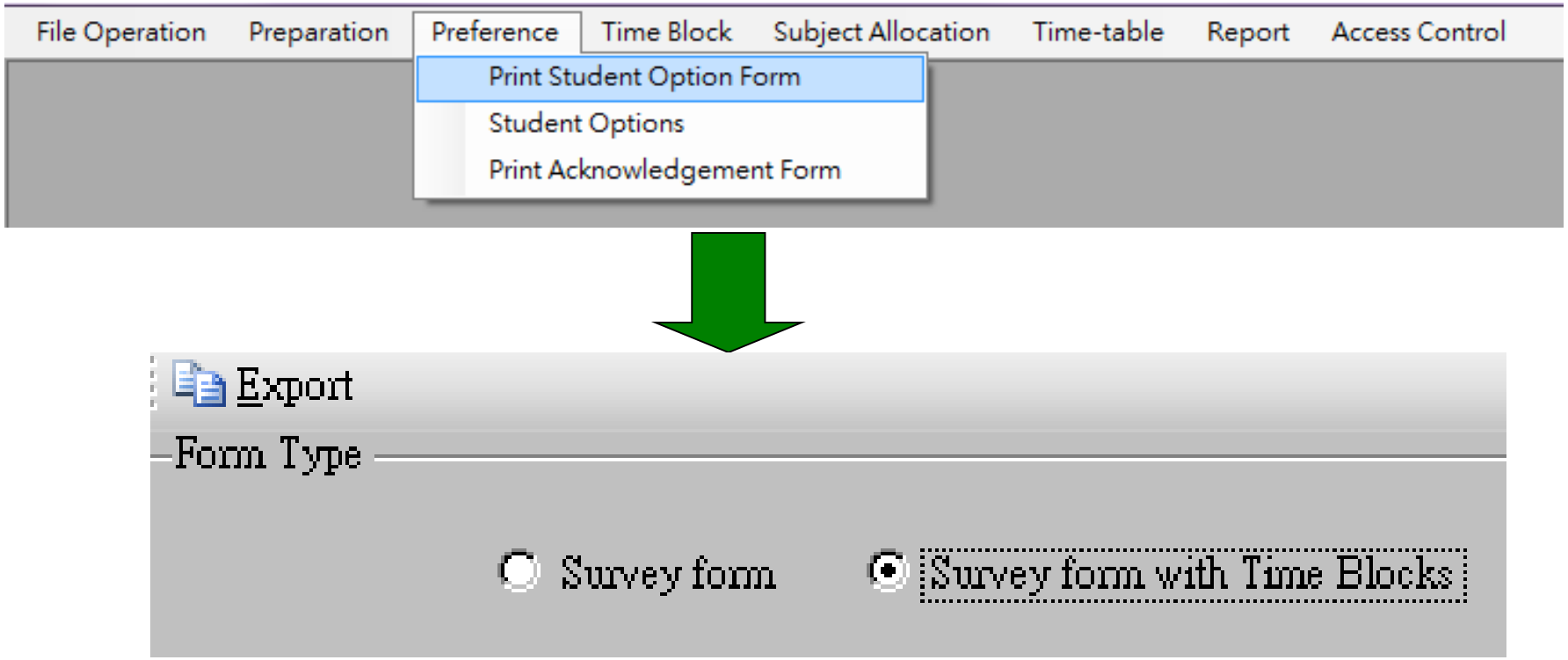
7. Generate and Maintain Time Block



Subject Group	Block 1	Block 2	Block 3
生物 - 生物 組別 1	生物 組別 1		
生物 - 生物 組別 2		生物 組別 2	
化學 - 化學 組別 1			化學 組別 1
化學 - 化學 組別 2	化學 組別 2		
物理 - 物理 組別 1		物理 組別 1	
物理 - 物理 組別 2	物理 組別 2		
中國文學 - 文學		文學	
中國歷史 - 中史	中史		
經濟 - 經濟 組別 1		經濟 組別 1	
經濟 - 經濟 組別 2			經濟 組別 2
地理 - 地理			地理
歷史 - 歷史			歷史
企業、會計與財務概論 - 企業 組別 1	企業 組別 1		
企業、會計與財務概論 - 企業 組別 2		企業 組別 2	
設計與應用科技 - 設計		設計	
			健社
			資訊 組別 2

Count_Description	Block 1	Block 2	Block 3
Max number of subject groups	6	6	6
Number of subject groups assigned	6	6	6

8. Distribute Student Option Form



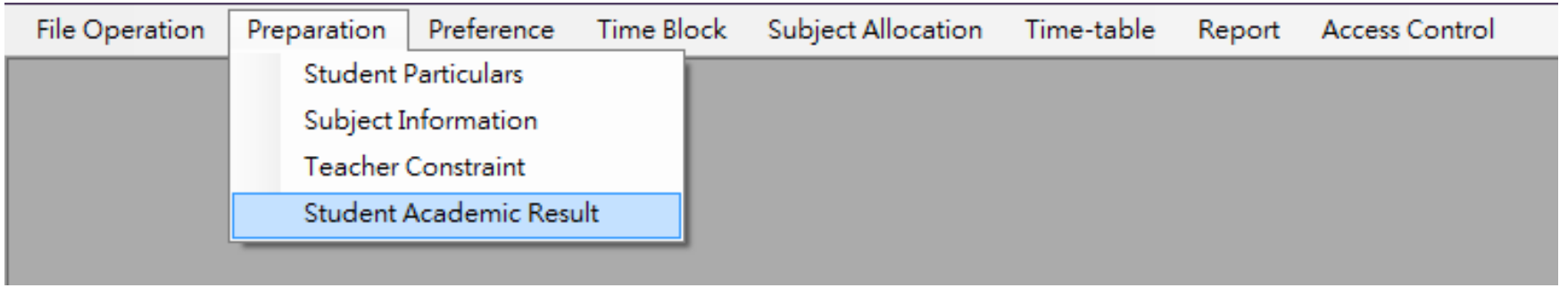
8. Distribute Student Option Form

Choice of Elective Subjects of S4

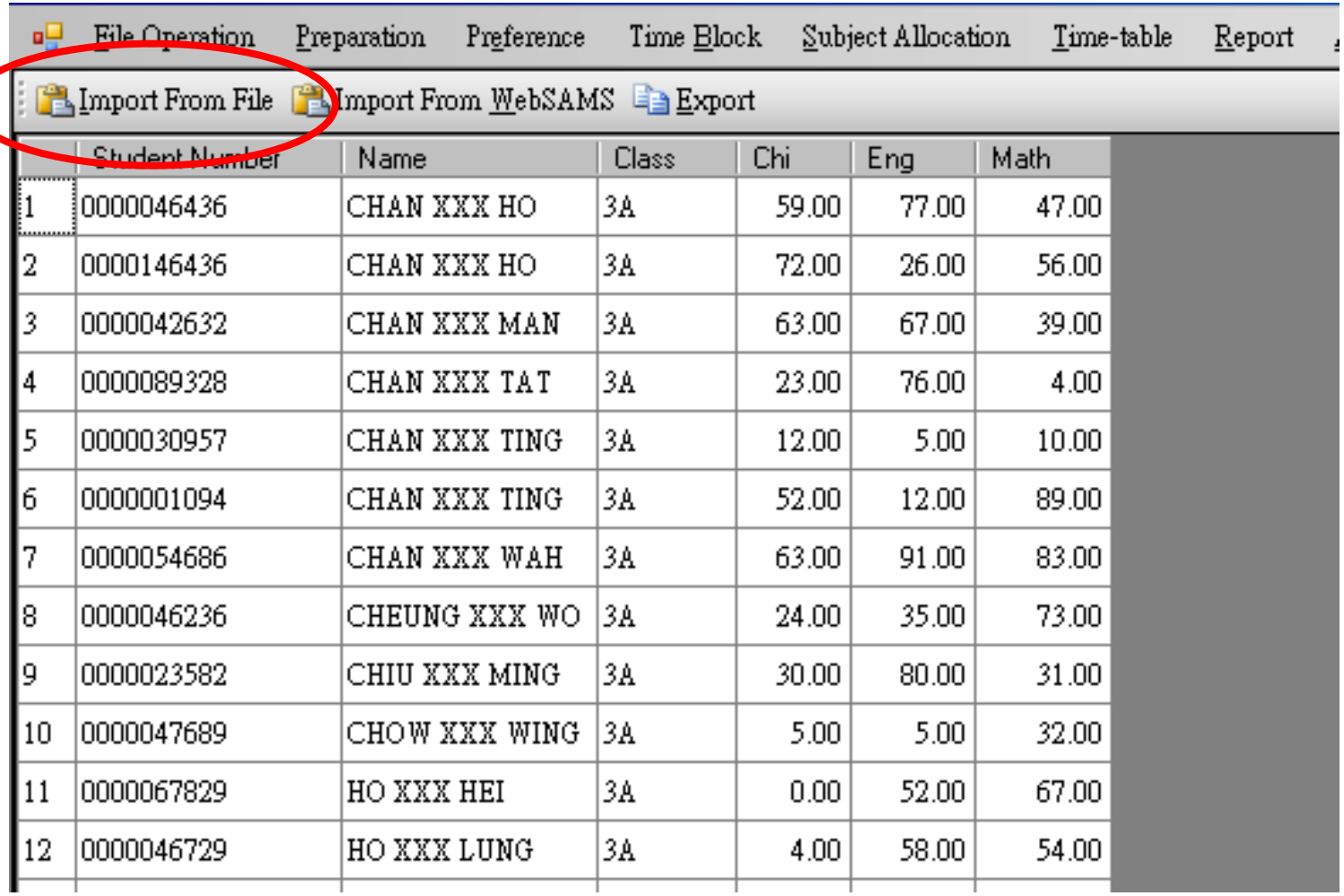
Based on the results of the survey on elective subjects conducted among S3 students and the school's resources, this school is going to offer x elective subjects, which are arranged in the following 3 blocks, for students' choices in the next school year. A student will study x to y elective subjects. This school will allocate one subject from each block depending on the number of elective subjects that a student is going to study.

	Block 1	Block 2	Block 3
生物	生物 組別 1	生物 組別 2	
化學	化學 組別 2		化學 組別 1
物理	物理 組別 2	物理 組別 1	
文學		文學	
中史	中史		
經濟		經濟 組別 1	經濟 組別 2
地理			地理
歷史			歷史
企業	企業 組別 1	企業 組別 2	
設計		設計	
健社			健社
資訊	資訊 組別 1		資訊 組別 2

10. Prepare Student Academic Results

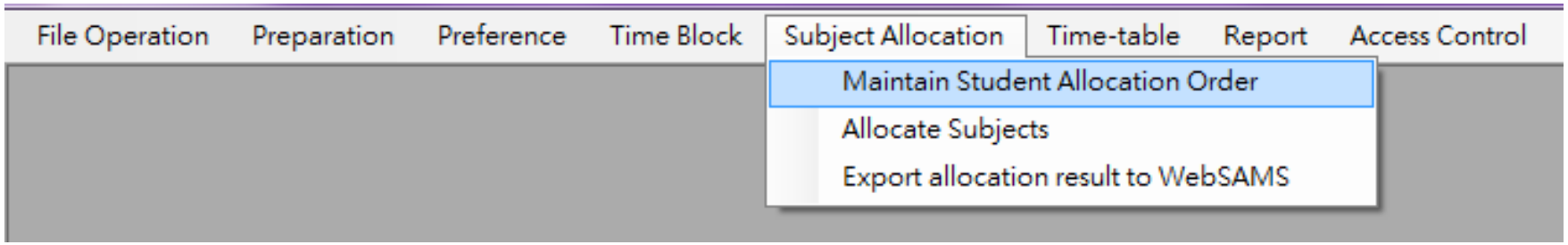


10. Prepare Student Academic Results

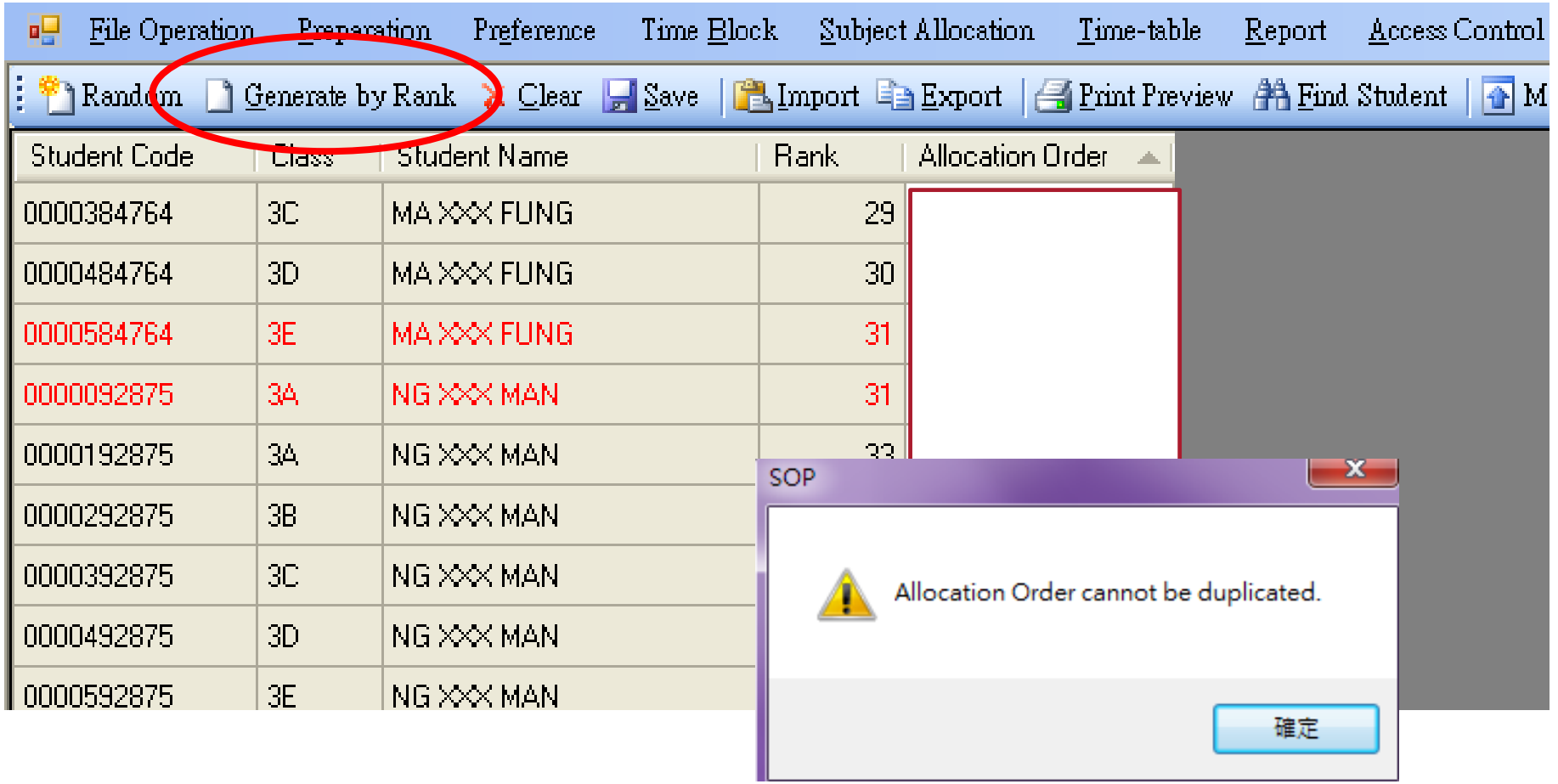


	Student Number	Name	Class	Chi	Eng	Math
1	0000046436	CHAN XXX HO	3A	59.00	77.00	47.00
2	0000146436	CHAN XXX HO	3A	72.00	26.00	56.00
3	0000042632	CHAN XXX MAN	3A	63.00	67.00	39.00
4	0000089328	CHAN XXX TAT	3A	23.00	76.00	4.00
5	0000030957	CHAN XXX TING	3A	12.00	5.00	10.00
6	0000001094	CHAN XXX TING	3A	52.00	12.00	89.00
7	0000054686	CHAN XXX WAH	3A	63.00	91.00	83.00
8	0000046236	CHEUNG XXX WO	3A	24.00	35.00	73.00
9	0000023582	CHIU XXX MING	3A	30.00	80.00	31.00
10	0000047689	CHOW XXX WING	3A	5.00	5.00	32.00
11	0000067829	HO XXX HEI	3A	0.00	52.00	67.00
12	0000046729	HO XXX LUNG	3A	4.00	58.00	54.00

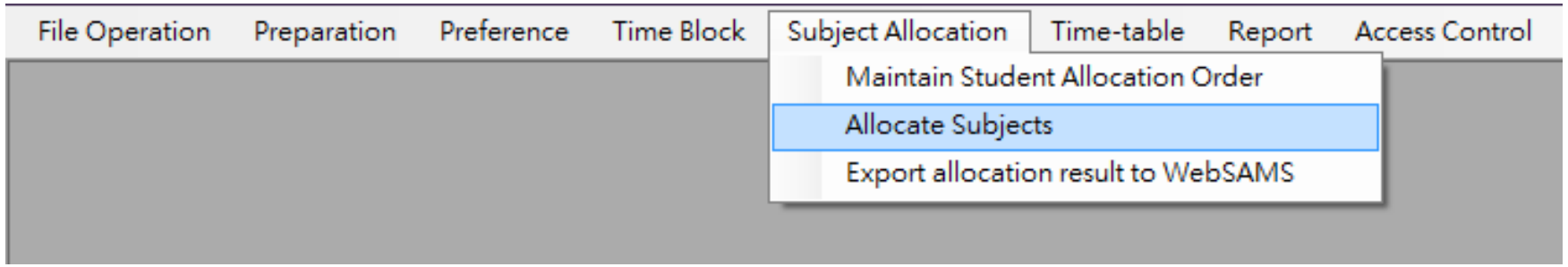
11. Maintain Student Allocation Order



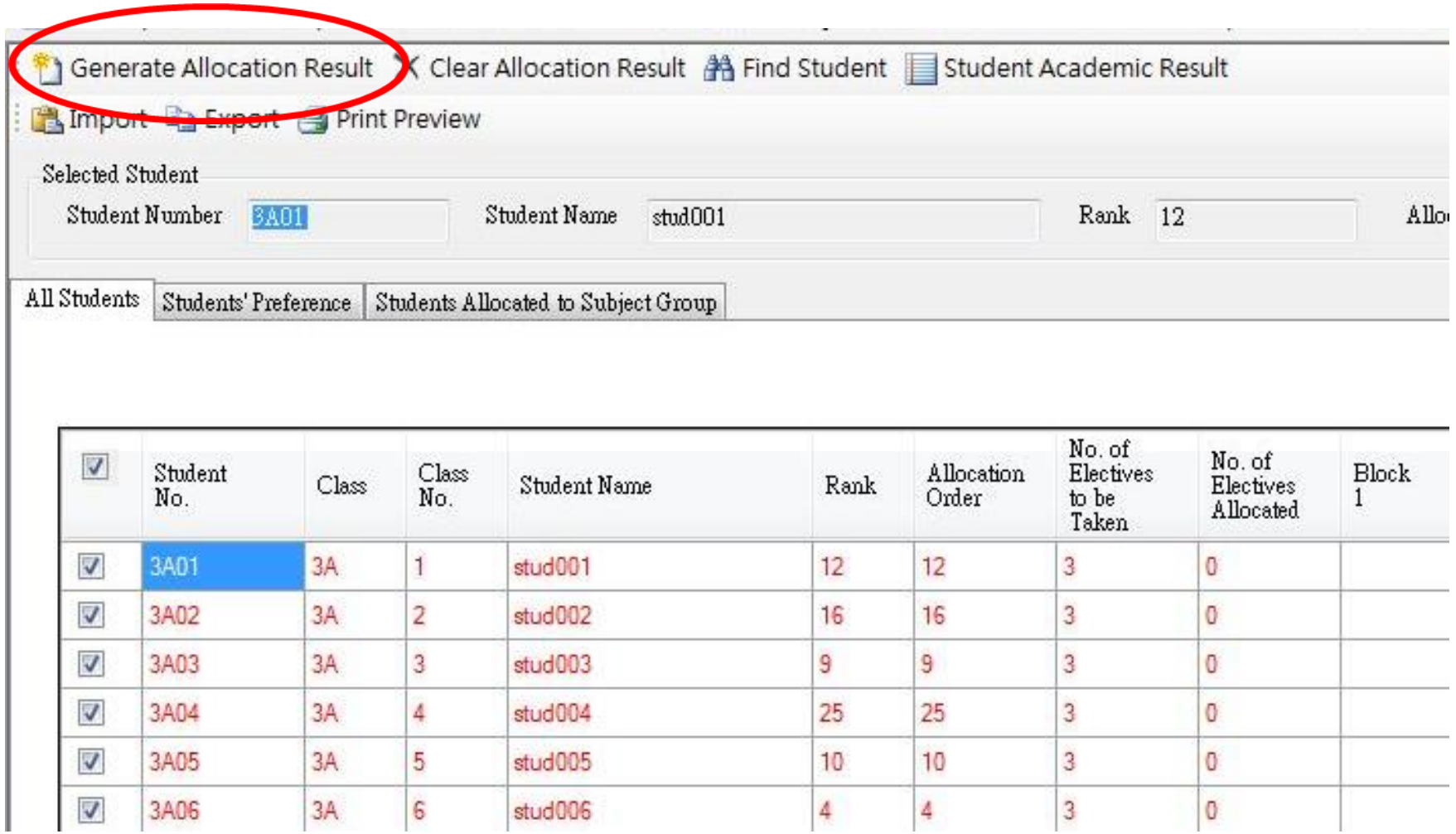
11. Maintain Student Allocation Order



12. Allocate Subjects to Students

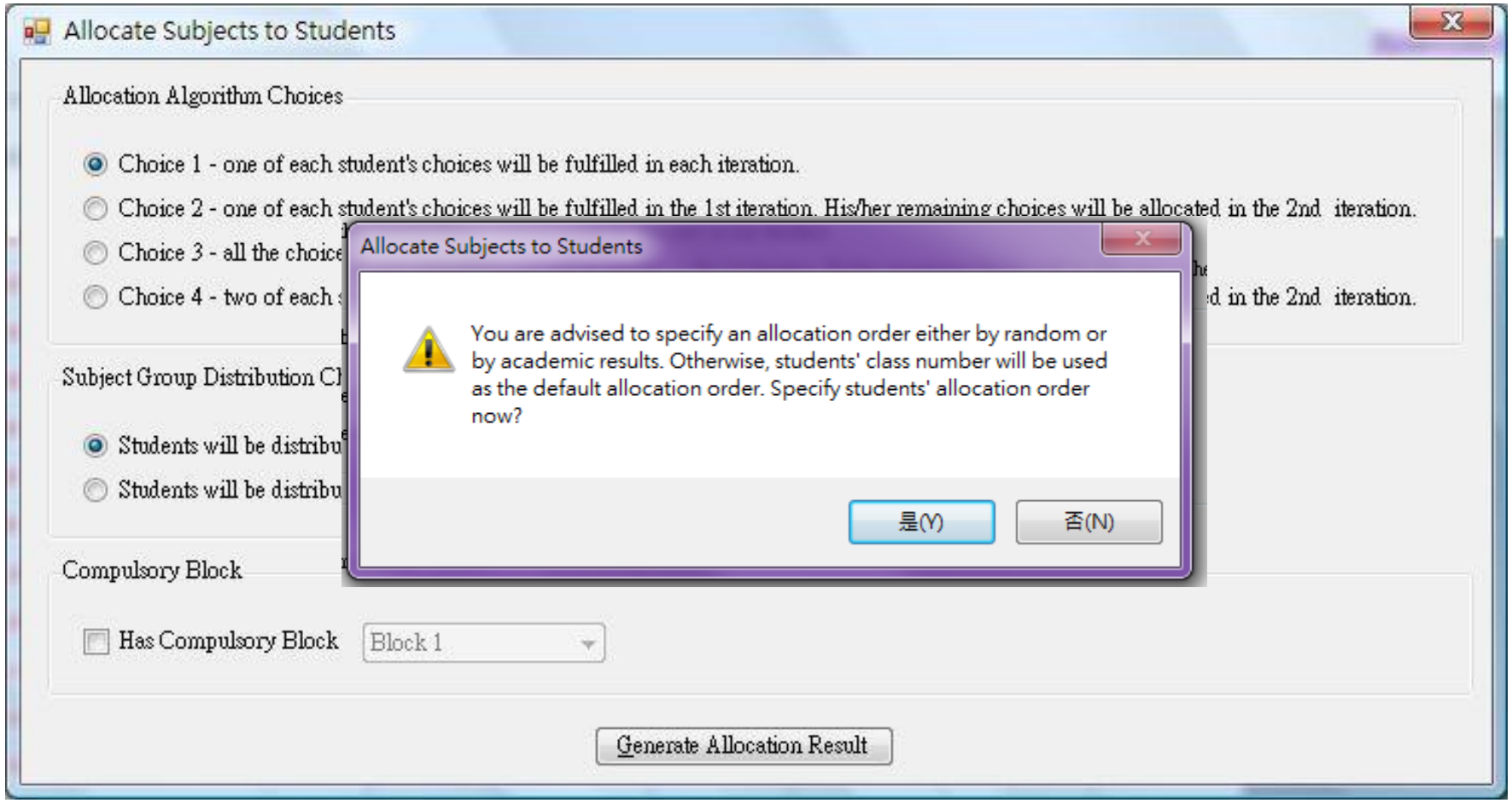


12. Allocate Subjects to Students

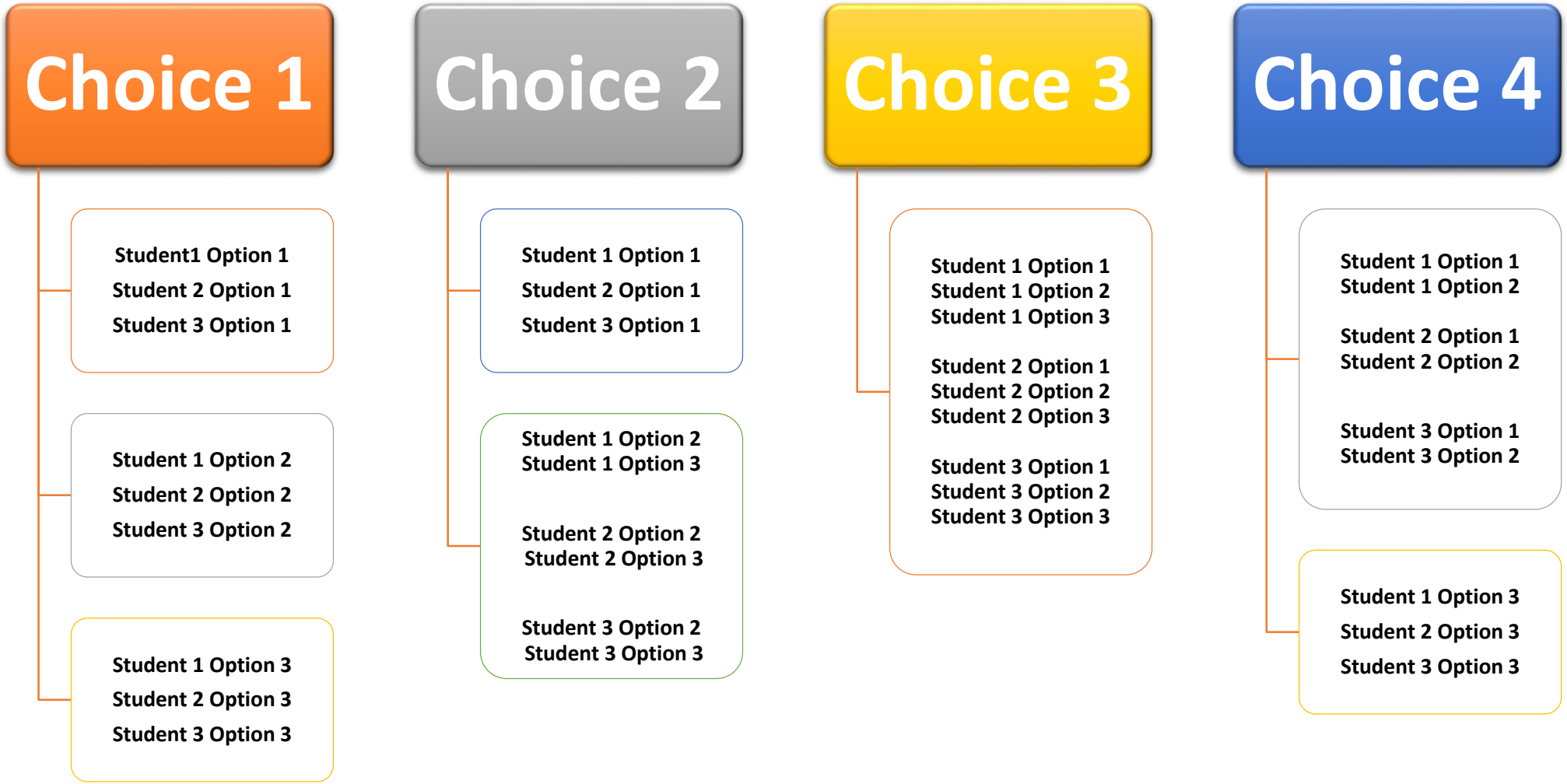


Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1
3A01	3A	1	stud001	12	12	3	0	
3A02	3A	2	stud002	16	16	3	0	
3A03	3A	3	stud003	9	9	3	0	
3A04	3A	4	stud004	25	25	3	0	
3A05	3A	5	stud005	10	10	3	0	
3A06	3A	6	stud006	4	4	3	0	

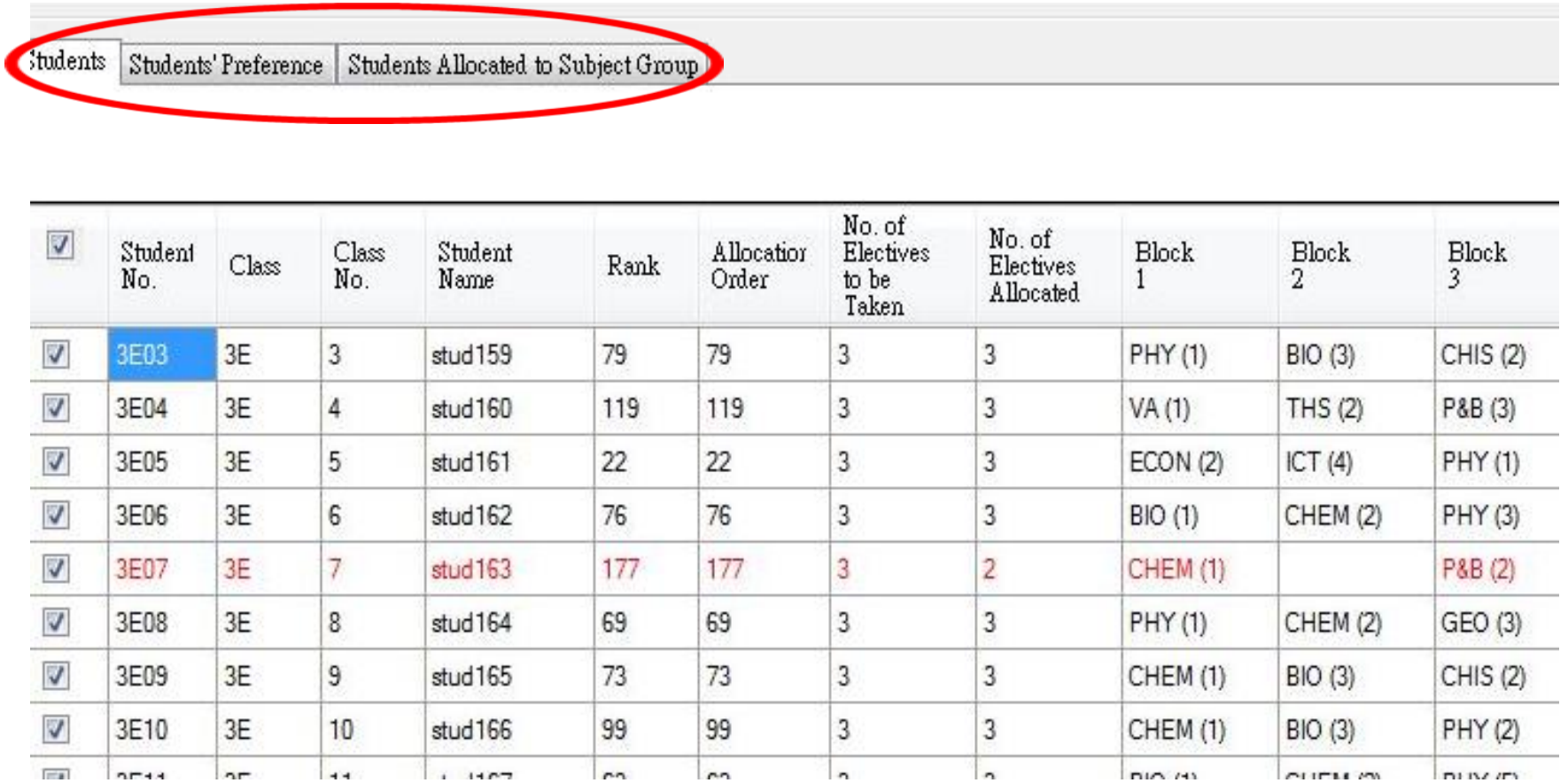
12. Allocate Subjects to Students



12. Allocate Subjects to Students



12. Allocate Subjects to Students

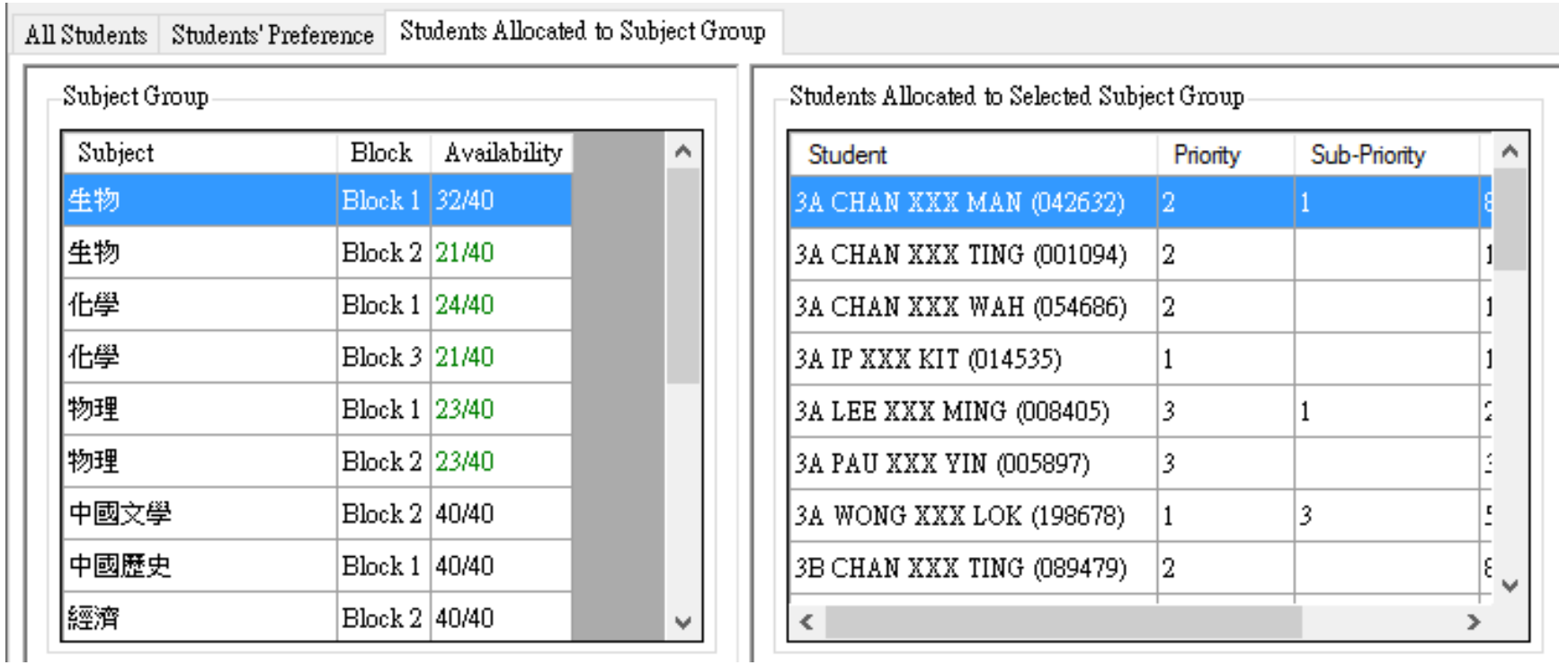


	Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3
☑	3E03	3E	3	stud159	79	79	3	3	PHY (1)	BIO (3)	CHIS (2)
☑	3E04	3E	4	stud160	119	119	3	3	VA (1)	THS (2)	P&B (3)
☑	3E05	3E	5	stud161	22	22	3	3	ECON (2)	ICT (4)	PHY (1)
☑	3E06	3E	6	stud162	76	76	3	3	BIO (1)	CHEM (2)	PHY (3)
☑	3E07	3E	7	stud163	177	177	3	2	CHEM (1)		P&B (2)
☑	3E08	3E	8	stud164	69	69	3	3	PHY (1)	CHEM (2)	GEO (3)
☑	3E09	3E	9	stud165	73	73	3	3	CHEM (1)	BIO (3)	CHIS (2)
☑	3E10	3E	10	stud166	99	99	3	3	CHEM (1)	BIO (3)	PHY (2)

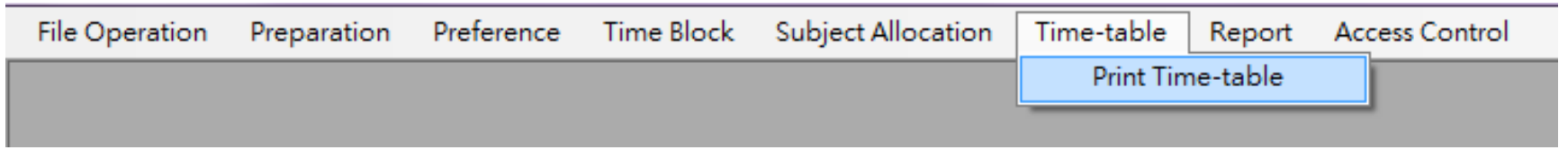
12. Allocate Subjects to Students

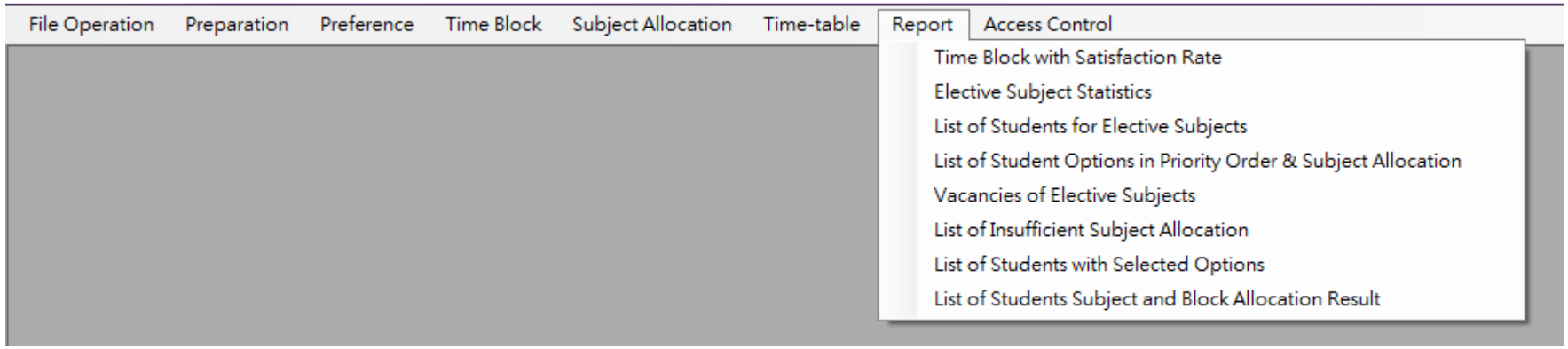
Subject	Priority	Sub-priority	Block 1	Block 2	Block 3
生物	5	1	32/40	21/40	
化學	5	2	24/40		21/40
物理	5	3	23/40	23/40	
中國文學	3			**40/40**	
中國歷史			40/40		
經濟	2			40/40	39/40
地理					**37/40**
歷史	4				39/40
企業、會計與財務概論			40/40	40/40	
設計與應用科技				29/40	
健康管理與社會關懷					25/40
資訊及通訊科技	1		**40/40**		38/40
			199/240	193/240	199/240

12. Allocate Subjects to Students



13. Timetable & Reports





Report

Report ID: RPT008 **Student Option Programme** Date:26

List of Students Subject and Block Allocation Result Page:1/

Student Number	Student Name	Class	Class Number	Next Year Class	Block 1	Block 2	Block 3
001094	CHAN XXX TING	3A	5		生物	經濟	化學
004869	KONG XXX PING	3A	14		資訊	企業	化學
005897	PAU XXX YIN	3A	26		生物	設計	歷史
008405	LEE XXX MING	3A	17		生物	文學	地理
009275	WONG XXX TING	3A	35		中史	企業	化學
009789	LAI XXX SUM	3A	15		化學	經濟	健社
014535	IP XXX KIT	3A	13		生物	文學	經濟
023582	CHIU XXX MING	3A	9		資訊	文學	經濟
030957	CHAN XXX TING	3A	6		化學	企業	健社
032897	LI XXX YIP	3A	20		化學	企業	健社
042632	CHAN XXX MAN	3A	3		生物	文學	健社
043987	LEE XXX YIP	3A	19		化學	企業	健社
046236	CHEUNG XXX WO	3A	8		資訊	物理	化學
046436	CHAN XXX HO	3A	1		資訊	文學	地理

Report

Report ID: RPT004

Student Option Programme

List of Student Options in Priority Order and Subject Allocation

Date:11/05/2023

Page:1/7

Stn No.	Name	Class	Class Number	Rank	Option 01	Option 02	Option 03	Option 04	Option 05	Option 06	Sci 01	Sci 02	Sci 03
001094	CHAN XXX TING	3A	5	10	化學	生物	經濟	文學	中史	歷史			
004869	KONG XXX PING	3A	14	18	資訊	企業		設計	文學	地理			
005897	PAU XXX YIN	3A	26	38	歷史	設計	生物	地理	經濟	企業			
008405	LEE XXX MING	3A	17	23	文學	地理		健社	資訊	企業			
009275	WONG XXX TING	3A	35	63	Two Science Subjects 兩科理科科目	中史	資訊	企業	文學	地理			
											化學，生物	物理，生物	物理，化學
009789	LAI XXX SUM	3A	15	19	化學	健社	歷史	地理	經濟	企業			
009872	CHOW XXX WING	3B	11	89	Two Science Subjects 兩科理科科目	生物	歷史	文學	經濟	資訊			
											物理，生物	生物，化學	物理，化學
012435	CHEUNG XXX WO	3C	8	117	經濟	資訊	化學	歷史	文學	設計			
013412	NG XXX MAN	3E	24	192	企業	經濟	設計	歷史	地理	物理			

Satisfaction Rate

No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3	
3	3	生物 (1)	化學 (2)	物理 (3)	100%
2	2	生物 (1)	化學 (2)		100%
3	3	生物 (1)	中史 (4)	物理 (3)	66.7%
2	2	生物 (1)		物理 (3)	50%

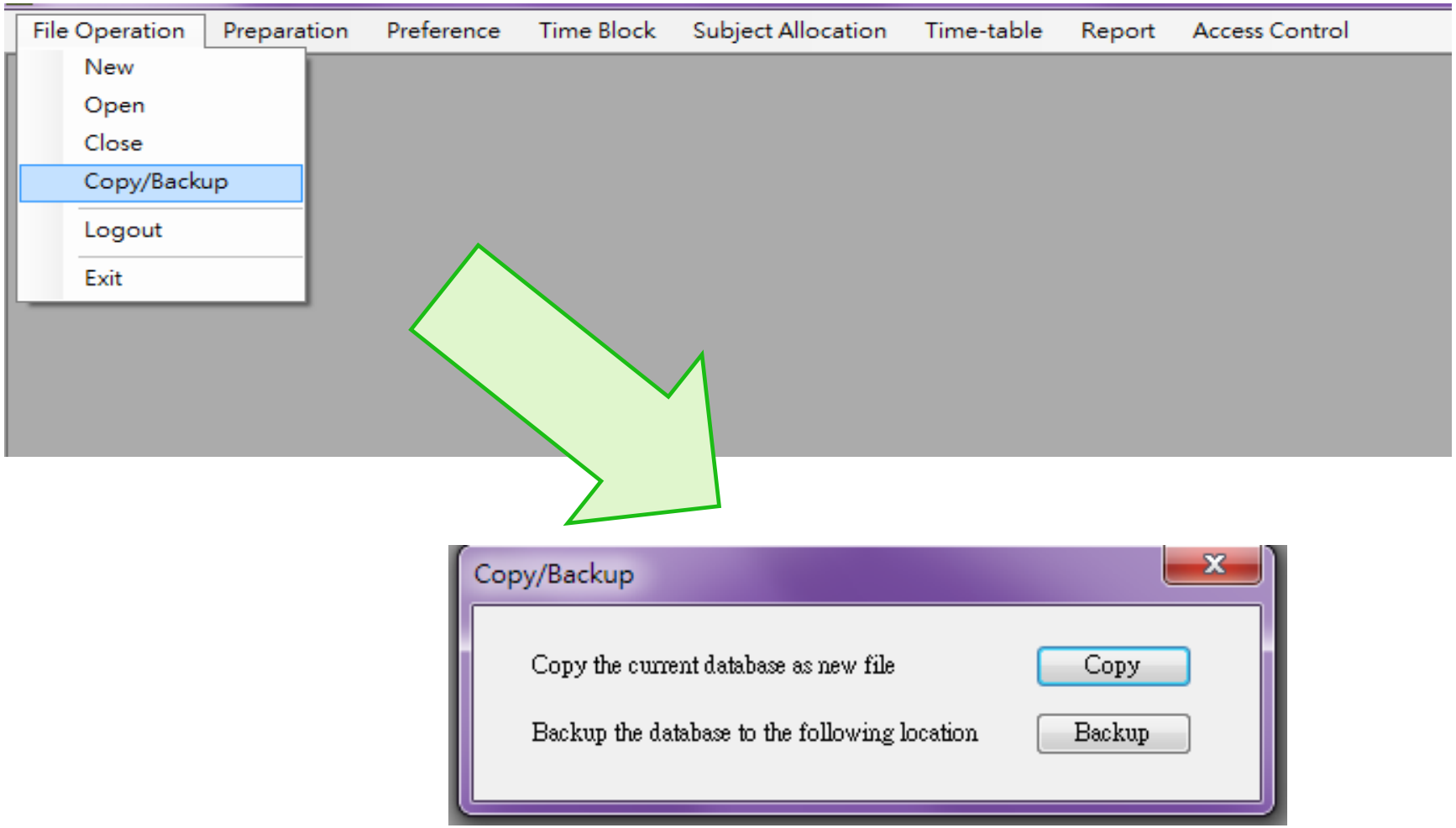
Overall Satisfaction Rate

= (100% + 100% + 66.7% + 50%) / 4 = **79.2%**

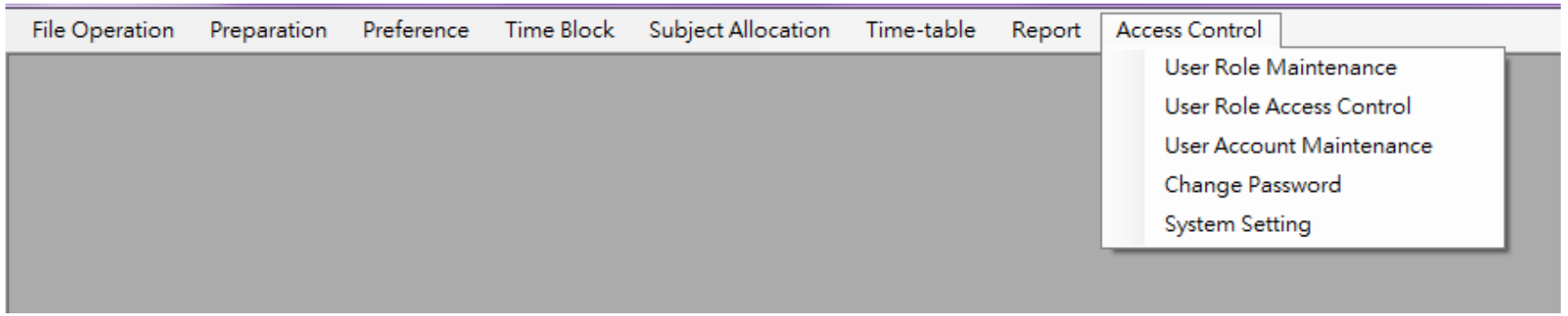
Other Functions

SOP

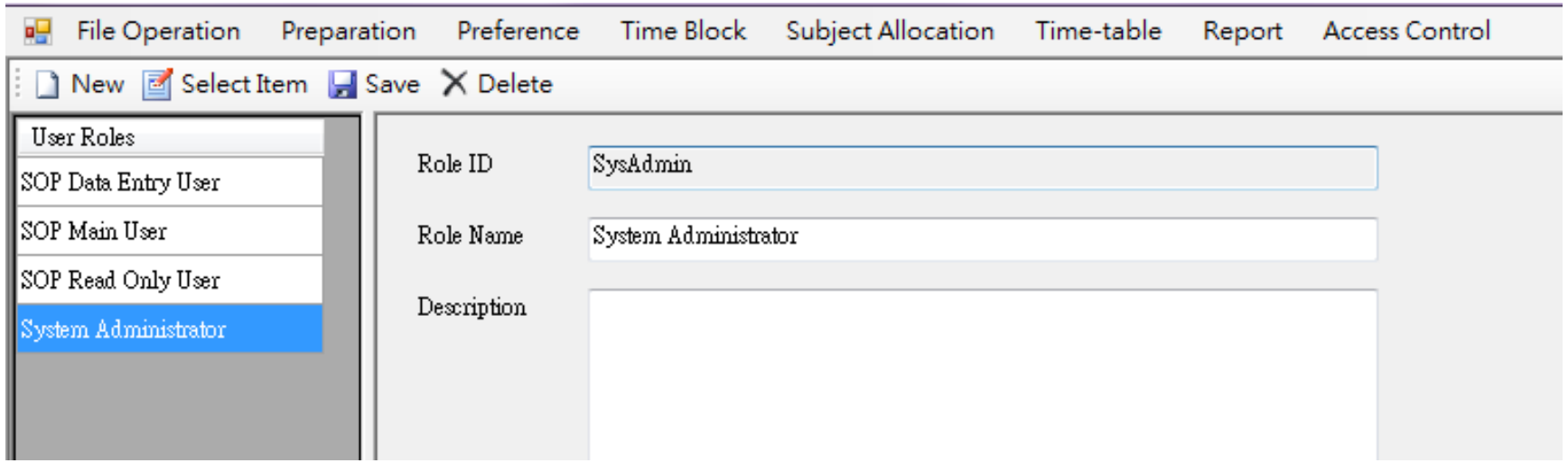
Copy/Backup


File Operation
Preparation
Preference
Time Block
Subject Allocation
Time-table
Report
Access Control
New
Open
Close
Copy/Backup
Logout
Exit
Copy/Backup
Copy the current database as new file
Copy
Backup the database to the following location
Backup

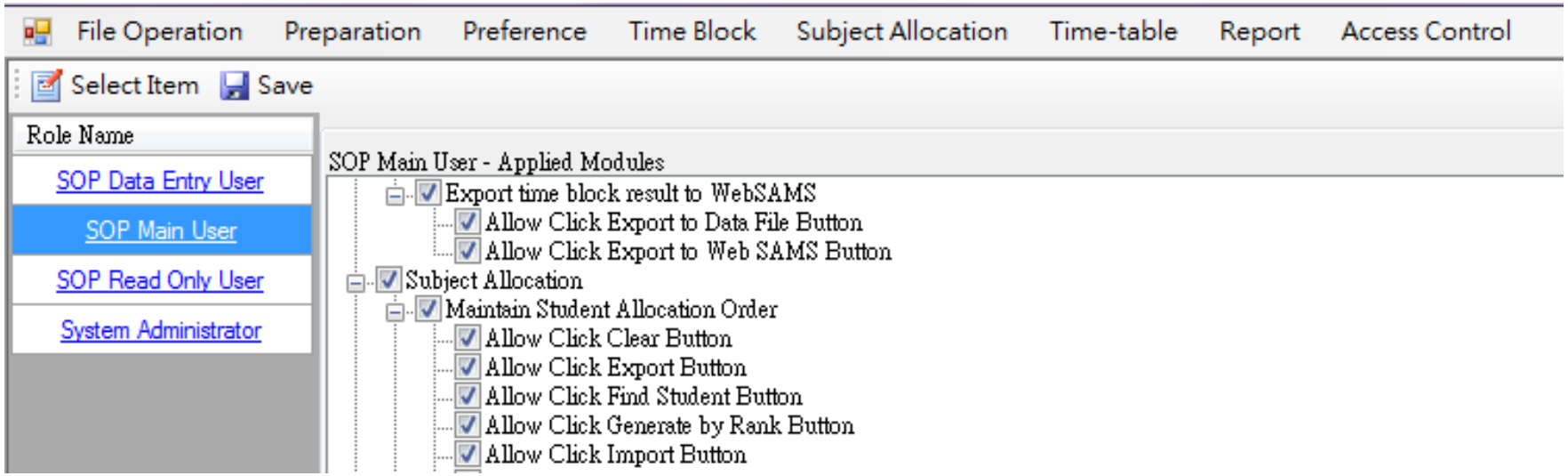
Access Control



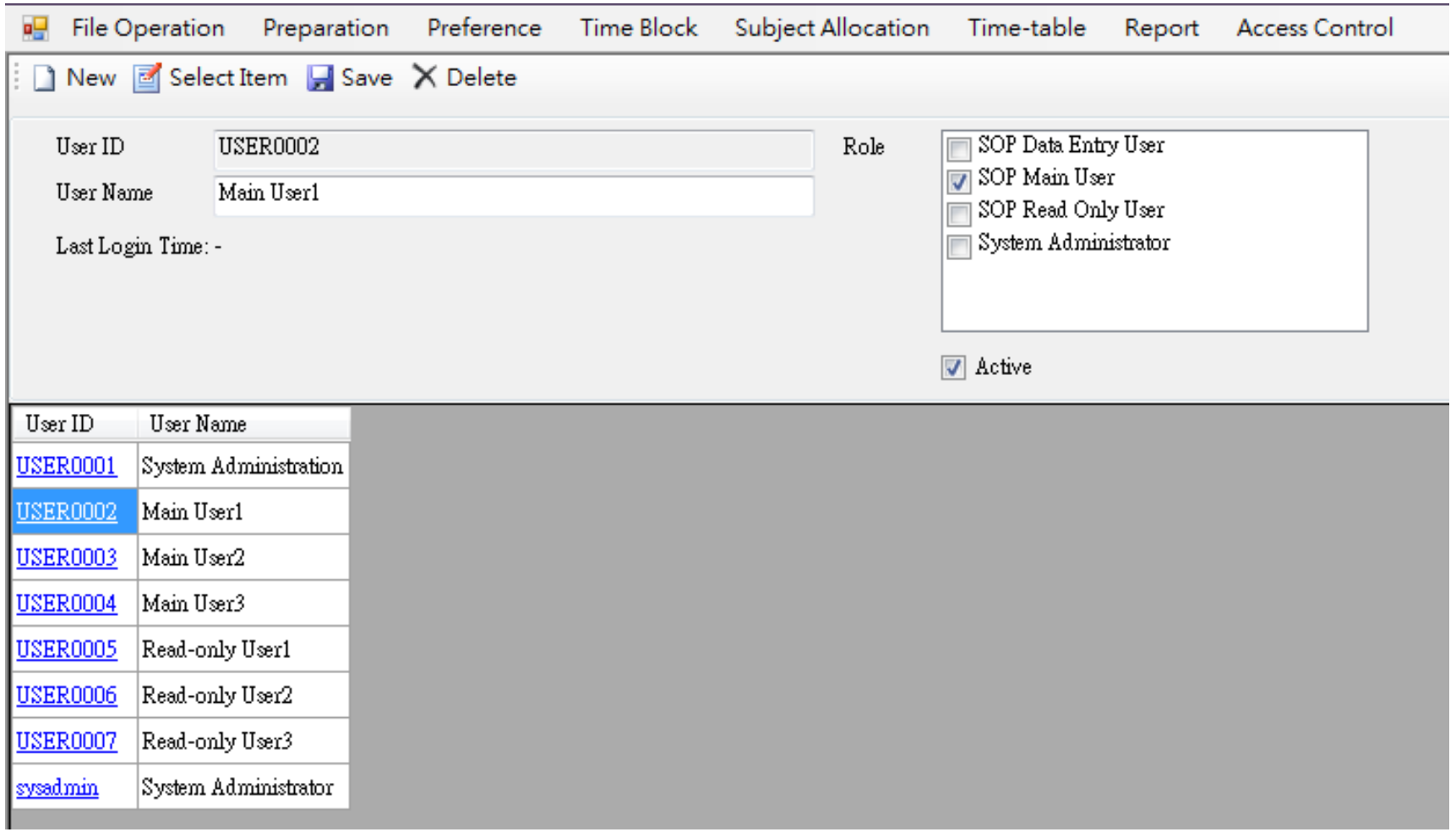
User Role Maintenance



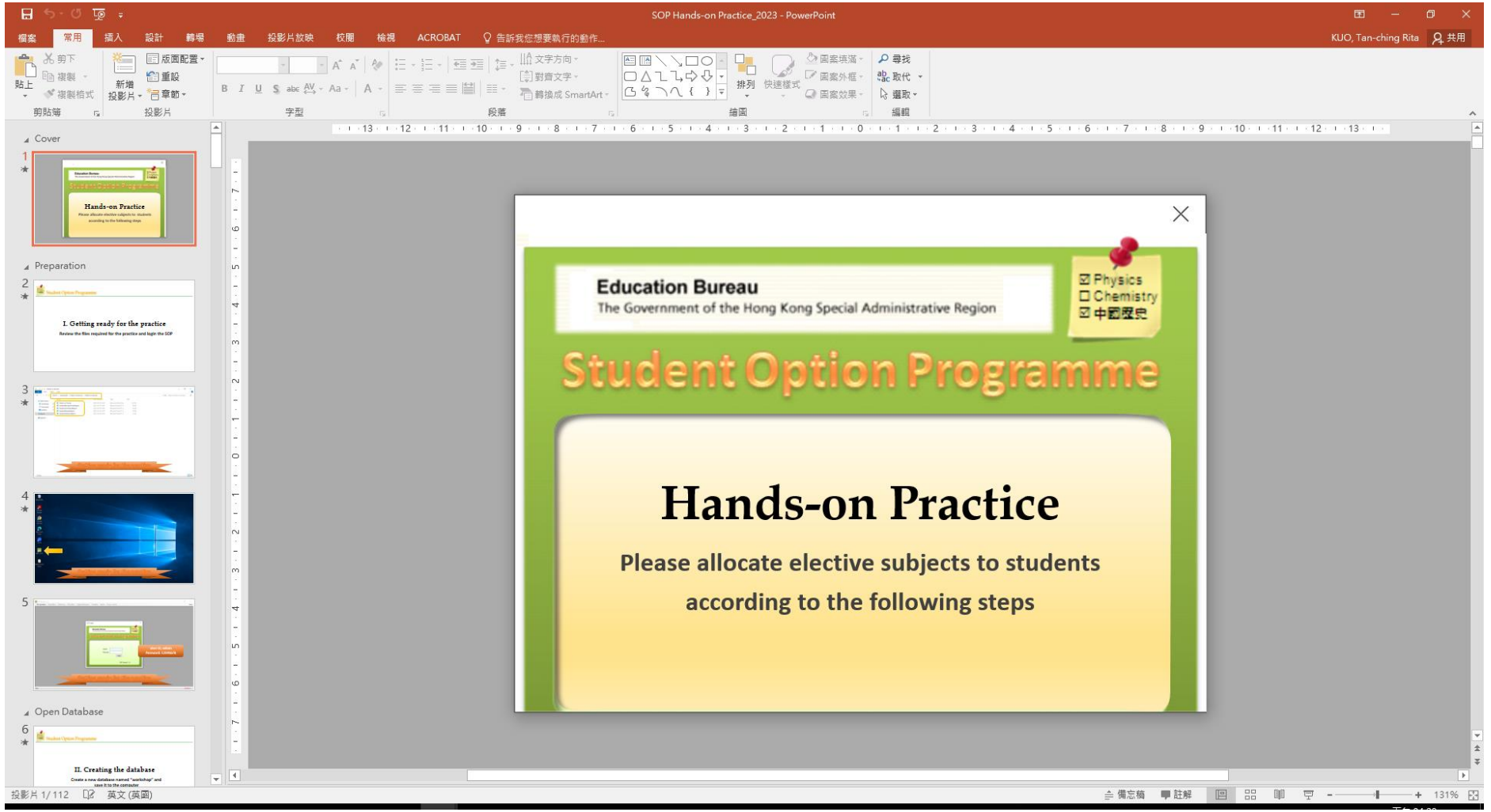
User Role Access Control



User Account Maintenance

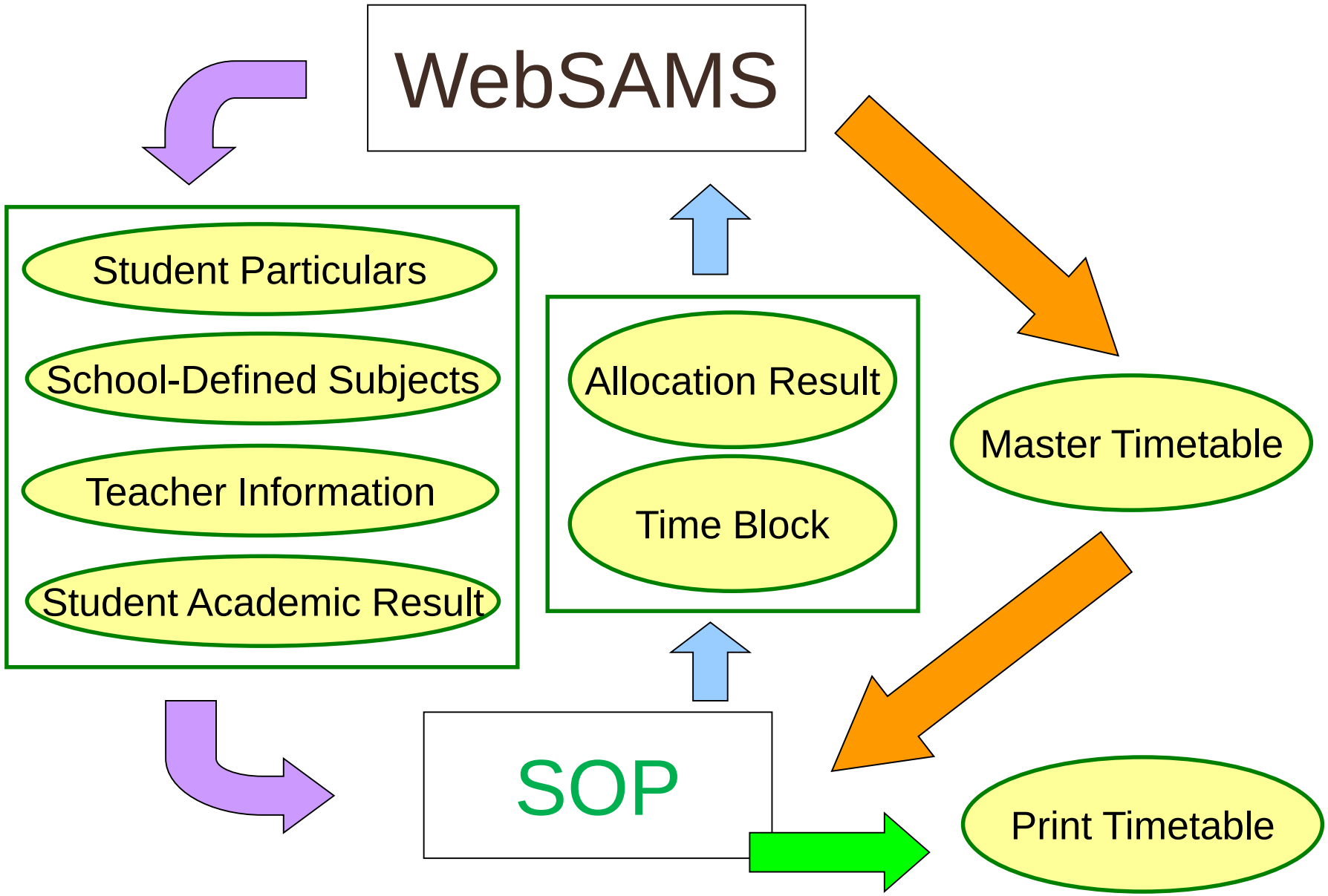


Hands-on practice

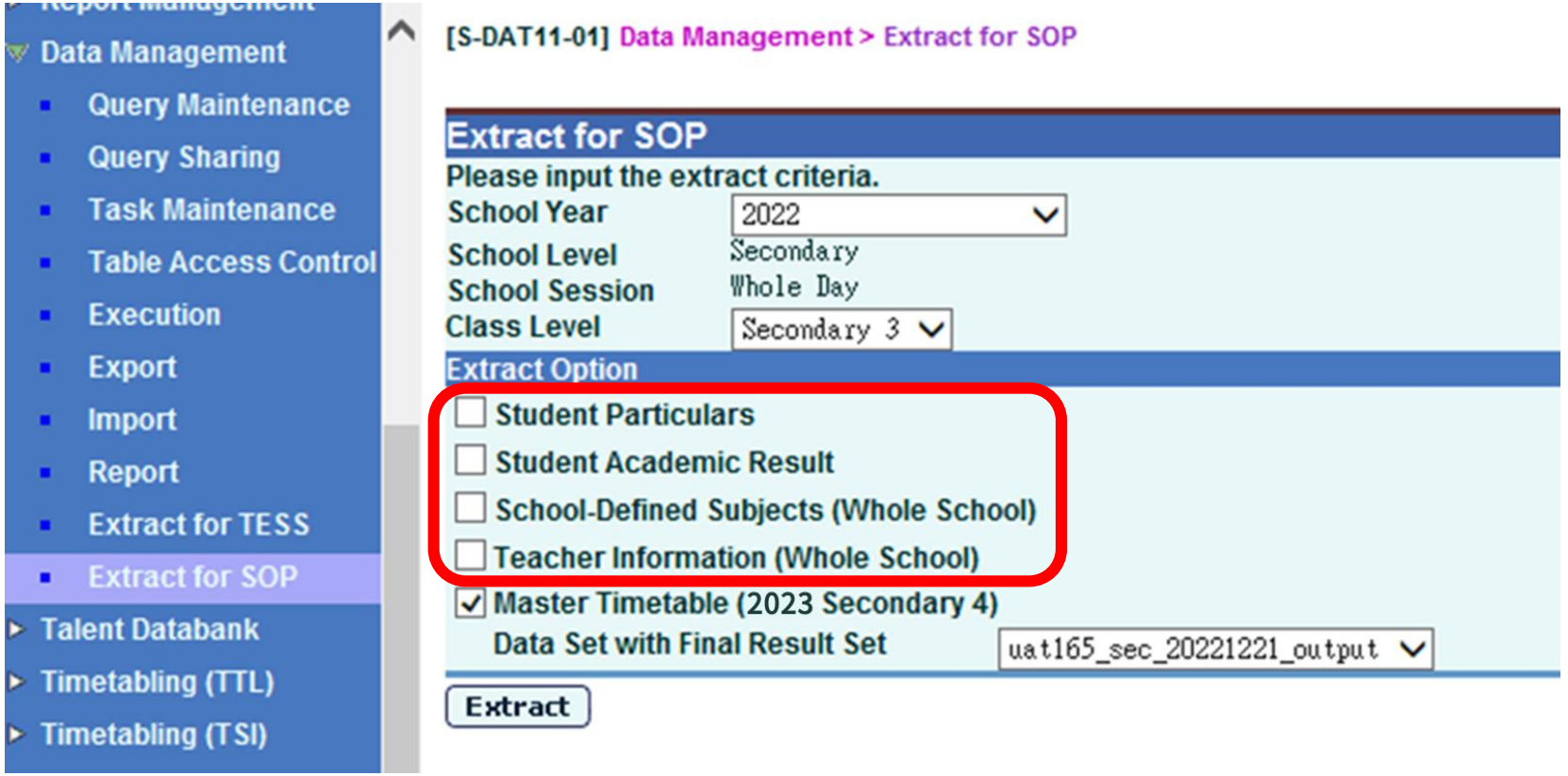


WebSAMS

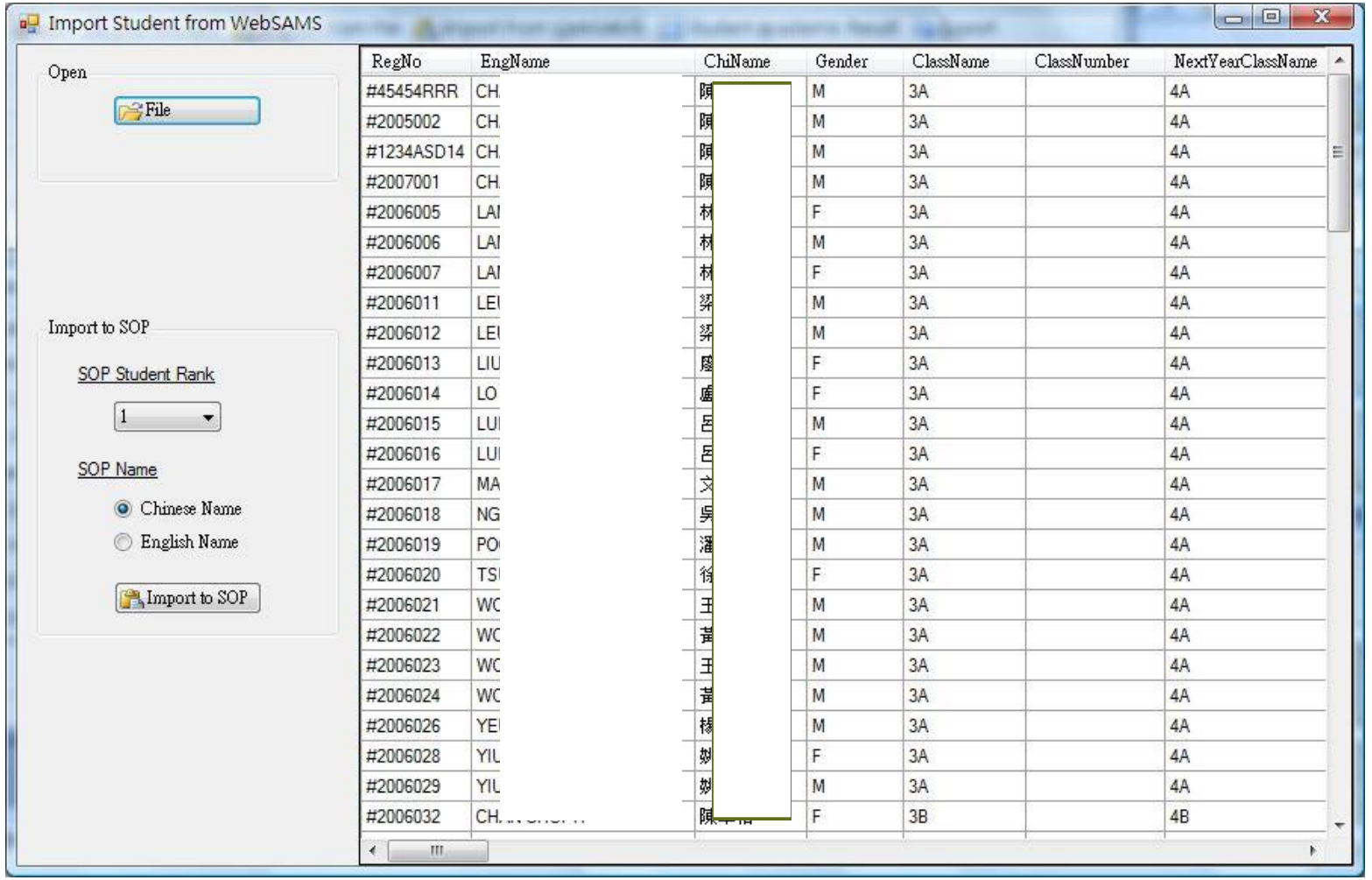
SOP


WebSAMS
Student Particulars
School-Defined Subjects
Teacher Information
Student Academic Result
Allocation Result
Time Block
Master Timetable
SOP
Print Timetable

WebSAMS

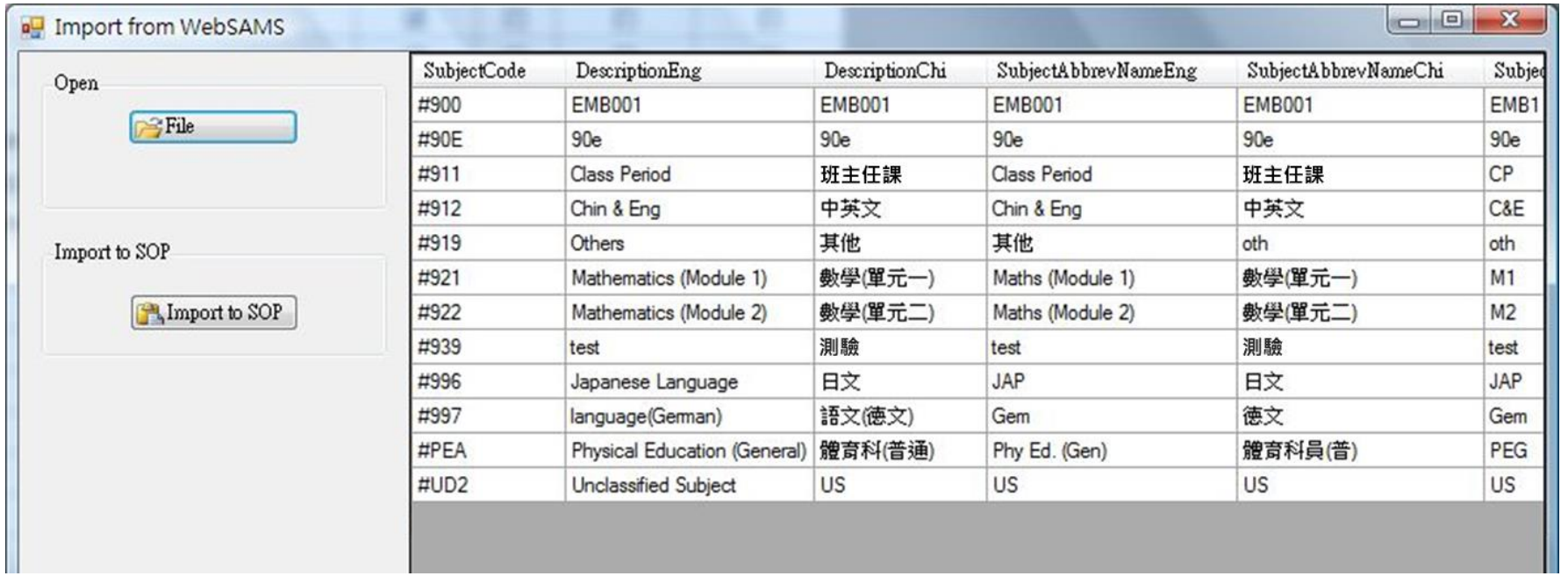

Data Management
Query Maintenance
Query Sharing
Task Maintenance
Table Access Control
Execution
Export
Import
Report
Extract for TESS
Extract for SOP
Talent Databank
Timetabling (TTL)
Timetabling (TSI)
[S-DAT11-01] Data Management > Extract for SOP
Extract for SOP
Please input the extract criteria.
School Year
2022
School Level
Secondary
School Session
Whole Day
Class Level
Secondary 3
Extract Option
Student Particulars
Student Academic Result
School-Defined Subjects (Whole School)
Teacher Information (Whole School)
Master Timetable (2023 Secondary 4)
Data Set with Final Result Set
uat165_sec_20221221_output
Extract

Student Particulars



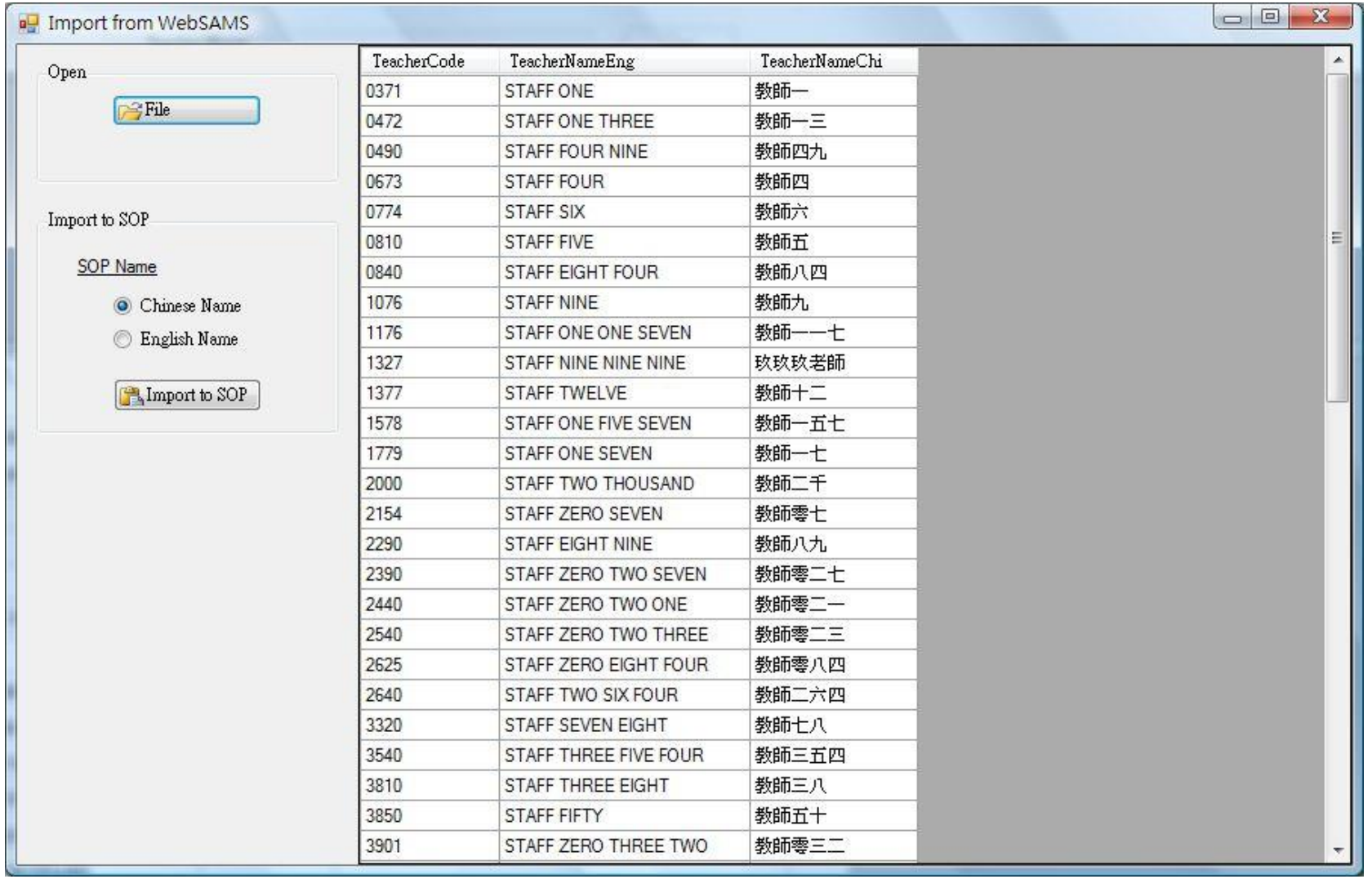
RegNo	EngName	ChiName	Gender	ClassName	ClassNumber	NextYearClassName
#45454RRR	CH	陳	M	3A		4A
#2005002	CH	陳	M	3A		4A
#1234ASD14	CH	陳	M	3A		4A
#2007001	CH	陳	M	3A		4A
#2006005	LAI	林	F	3A		4A
#2006006	LAI	林	M	3A		4A
#2006007	LAI	林	F	3A		4A
#2006011	LEI	梁	M	3A		4A
#2006012	LEI	梁	M	3A		4A
#2006013	LIU	廖	F	3A		4A
#2006014	LO	盧	F	3A		4A
#2006015	LUI	呂	M	3A		4A
#2006016	LUI	呂	F	3A		4A
#2006017	MA	文	M	3A		4A
#2006018	NG	吳	M	3A		4A
#2006019	PO	潘	M	3A		4A
#2006020	TSI	徐	F	3A		4A
#2006021	WC	王	M	3A		4A
#2006022	WC	黃	M	3A		4A
#2006023	WC	王	M	3A		4A
#2006024	WC	黃	M	3A		4A
#2006026	YE	楊	M	3A		4A
#2006028	YIU	姚	F	3A		4A
#2006029	YIU	姚	M	3A		4A
#2006032	CH	陳	F	3B		4B

School-Defined Subjects



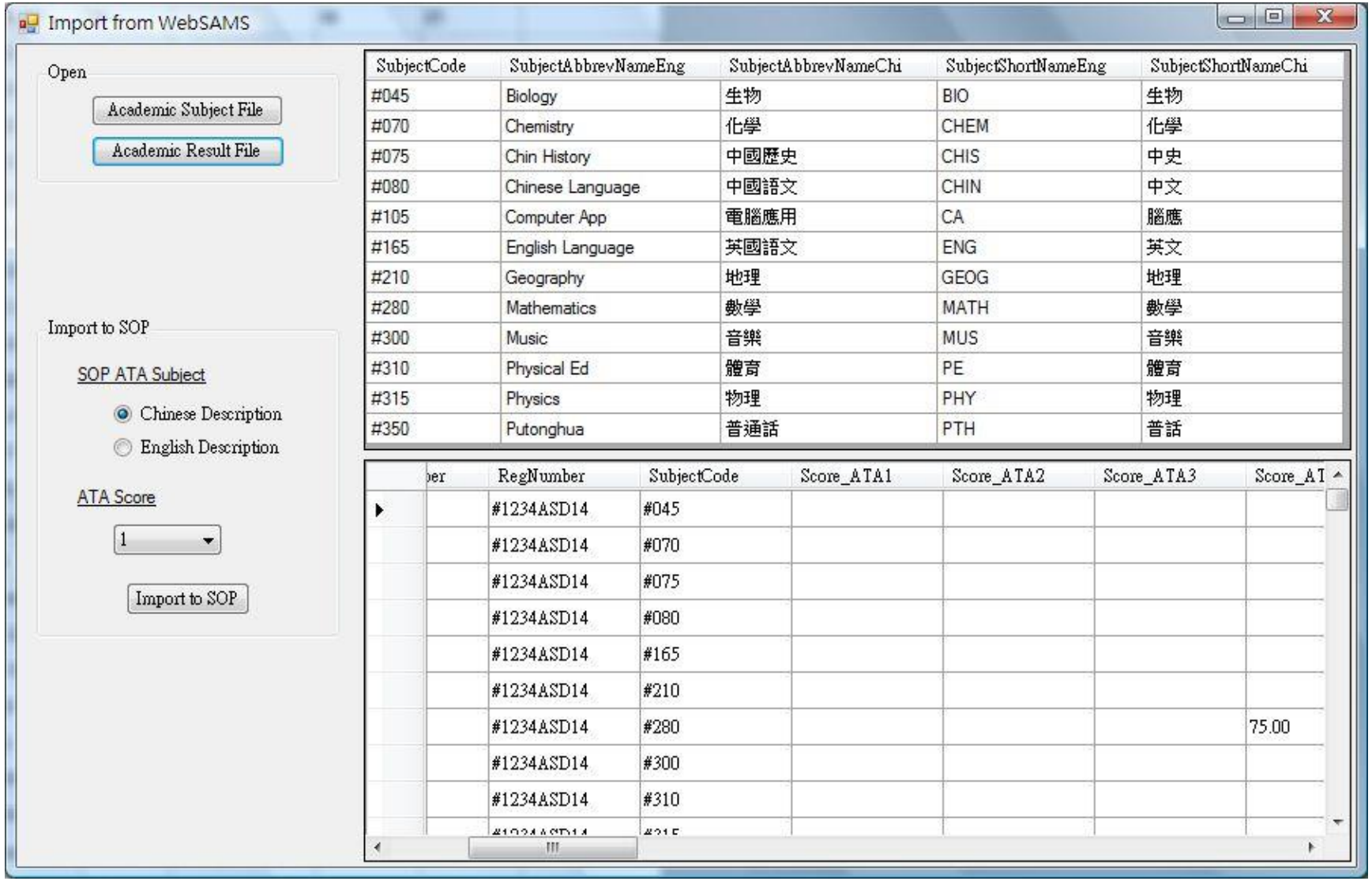
SubjectCode	DescriptionEng	DescriptionChi	SubjectAbbrevNameEng	SubjectAbbrevNameChi	Subjec
#900	EMB001	EMB001	EMB001	EMB001	EMB1
#90E	90e	90e	90e	90e	90e
#911	Class Period	班主任課	Class Period	班主任課	CP
#912	Chin & Eng	中英文	Chin & Eng	中英文	C&E
#919	Others	其他	其他	oth	oth
#921	Mathematics (Module 1)	數學(單元一)	Maths (Module 1)	數學(單元一)	M1
#922	Mathematics (Module 2)	數學(單元二)	Maths (Module 2)	數學(單元二)	M2
#939	test	測驗	test	測驗	test
#996	Japanese Language	日文	JAP	日文	JAP
#997	language(German)	語文(德文)	Gem	德文	Gem
#PEA	Physical Education (General)	體育科(普通)	Phy Ed. (Gen)	體育科員(普)	PEG
#UD2	Unclassified Subject	US	US	US	US

Teacher Information



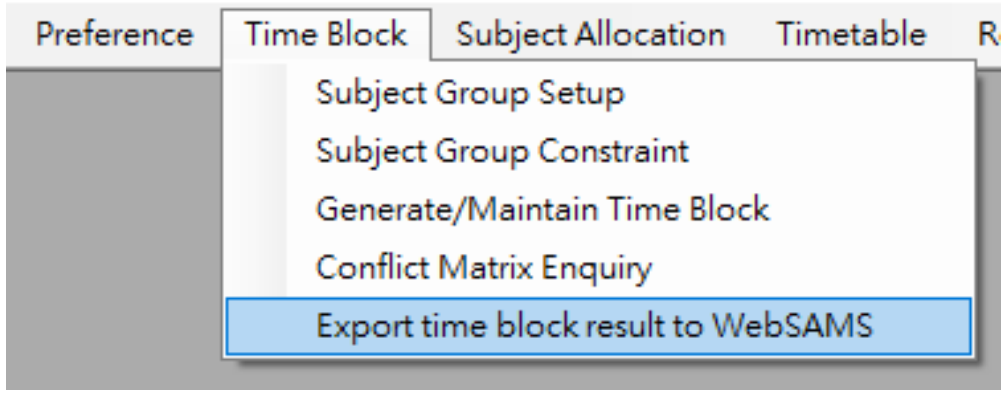
TeacherCode	TeacherNameEng	TeacherNameChi
0371	STAFF ONE	教師一
0472	STAFF ONE THREE	教師一三
0490	STAFF FOUR NINE	教師四九
0673	STAFF FOUR	教師四
0774	STAFF SIX	教師六
0810	STAFF FIVE	教師五
0840	STAFF EIGHT FOUR	教師八四
1076	STAFF NINE	教師九
1176	STAFF ONE ONE SEVEN	教師一一七
1327	STAFF NINE NINE NINE	玖玖玖老師
1377	STAFF TWELVE	教師十二
1578	STAFF ONE FIVE SEVEN	教師一五七
1779	STAFF ONE SEVEN	教師一七
2000	STAFF TWO THOUSAND	教師二千
2154	STAFF ZERO SEVEN	教師零七
2290	STAFF EIGHT NINE	教師八九
2390	STAFF ZERO TWO SEVEN	教師零二七
2440	STAFF ZERO TWO ONE	教師零二一
2540	STAFF ZERO TWO THREE	教師零二三
2625	STAFF ZERO EIGHT FOUR	教師零八四
2640	STAFF TWO SIX FOUR	教師二六四
3320	STAFF SEVEN EIGHT	教師七八
3540	STAFF THREE FIVE FOUR	教師三五四
3810	STAFF THREE EIGHT	教師三八
3850	STAFF FIFTY	教師五十
3901	STAFF ZERO THREE TWO	教師零三二

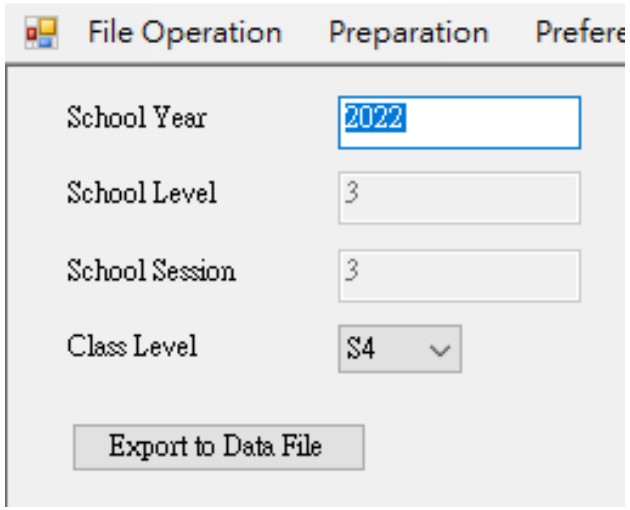
Academic Results



Export Time Block to WebSAMS

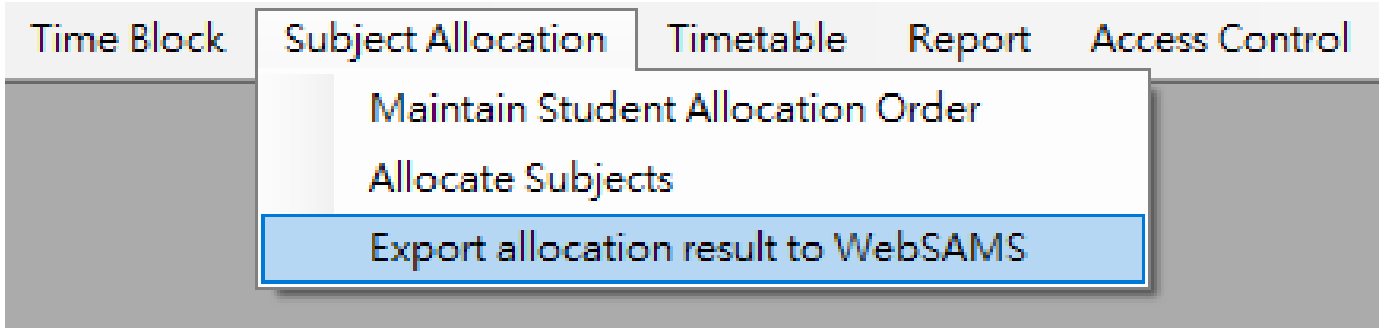
- The time block result can be exported as a file for WebSAMS timetabling





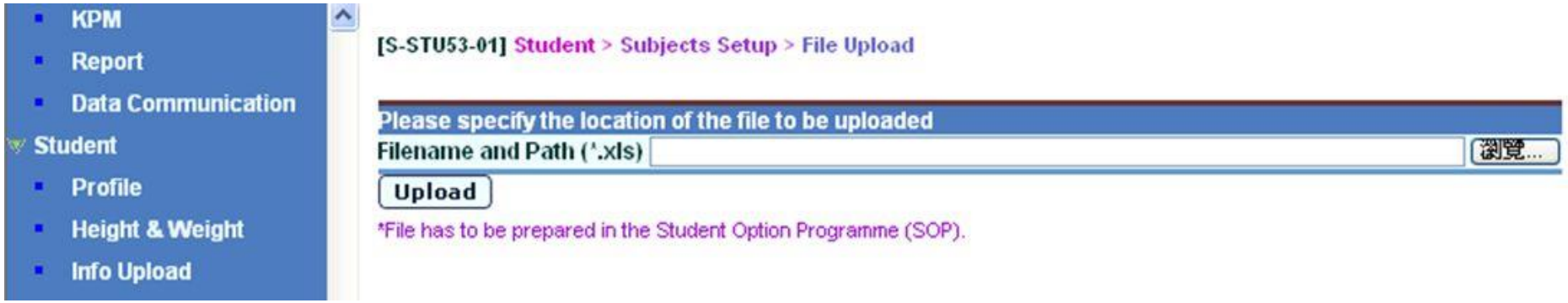
Export Allocation Result to WebSAMS

- Allocation Result can be exported as a file.
- The file can then be imported to WebSAMS for the subjects setup of students.



WebSAMS

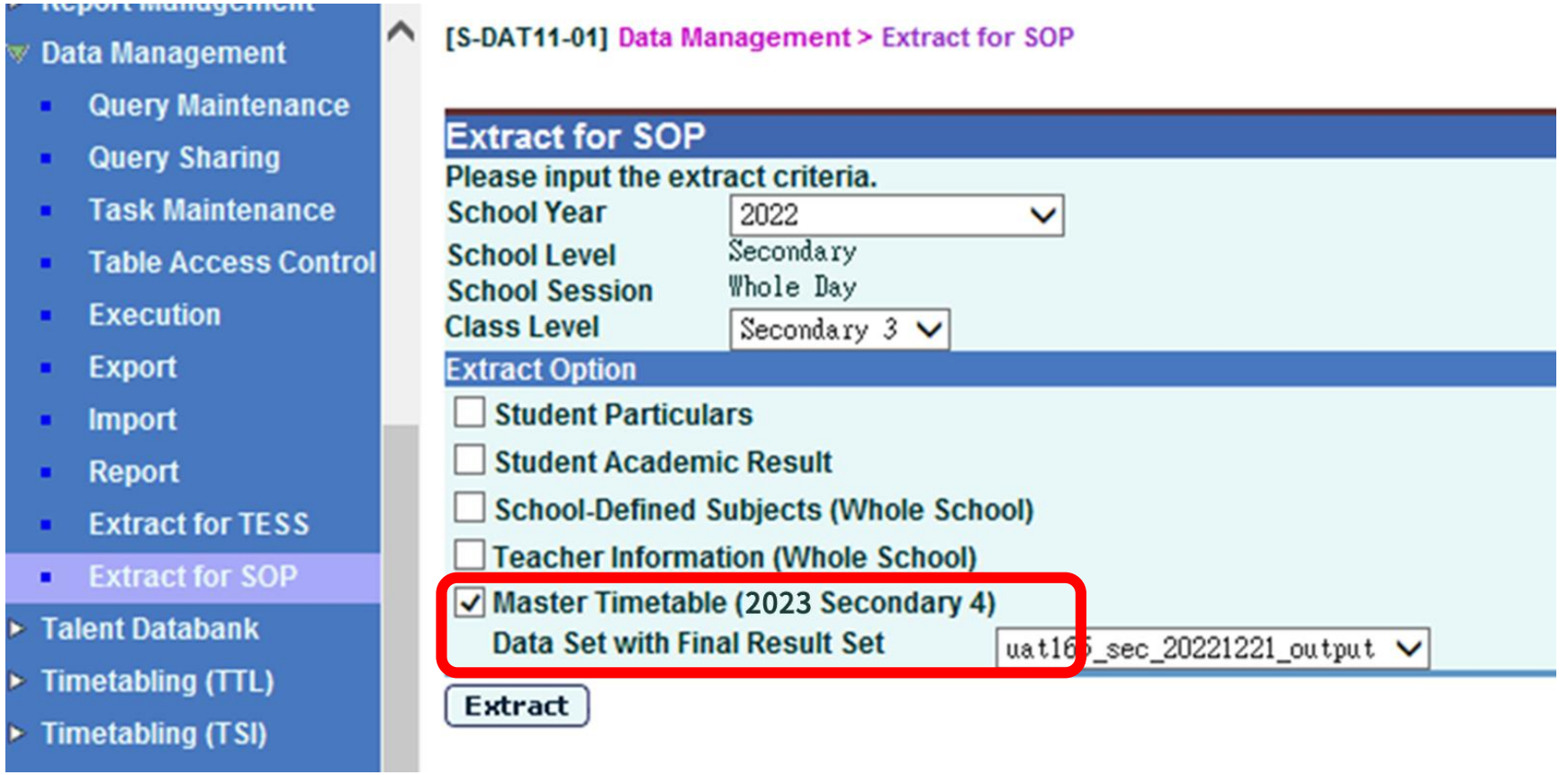
- Student → Subjects Setup → File Upload



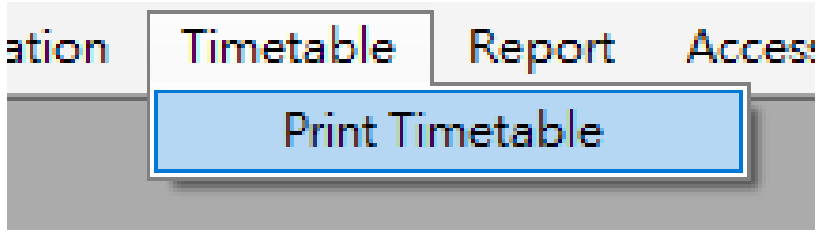
Timetable

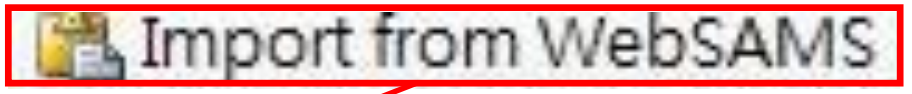
- Individual timetable can be printed for each student.
- Pre-requisites:
  - Timetabling tool should be TTL.
  - Subjects should be allocated using SOP.
  - If school-based subjects are involved, those subjects should be imported to SOP from the file exported through WebSAMS.
  - “Next year class” of students should be entered.

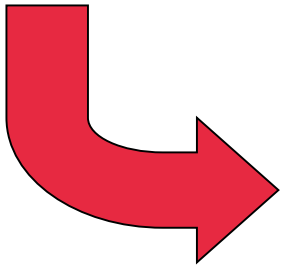
WebSAMS

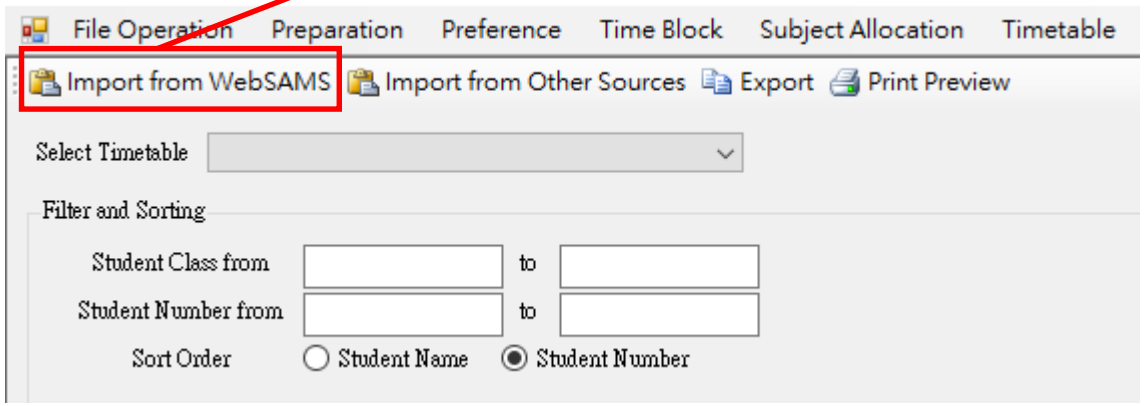

Data Management
Query Maintenance
Query Sharing
Task Maintenance
Table Access Control
Execution
Export
Import
Report
Extract for TESS
Extract for SOP
Talent Databank
Timetabling (TTL)
Timetabling (TSI)
[S-DAT11-01] Data Management > Extract for SOP
Extract for SOP
Please input the extract criteria.
School Year
2022
School Level
Secondary
School Session
Whole Day
Class Level
Secondary 3
Extract Option
Student Particulars
Student Academic Result
School-Defined Subjects (Whole School)
Teacher Information (Whole School)
Master Timetable (2023 Secondary 4)
Data Set with Final Result Set
_sec_20221221_output
Extract

Timetable

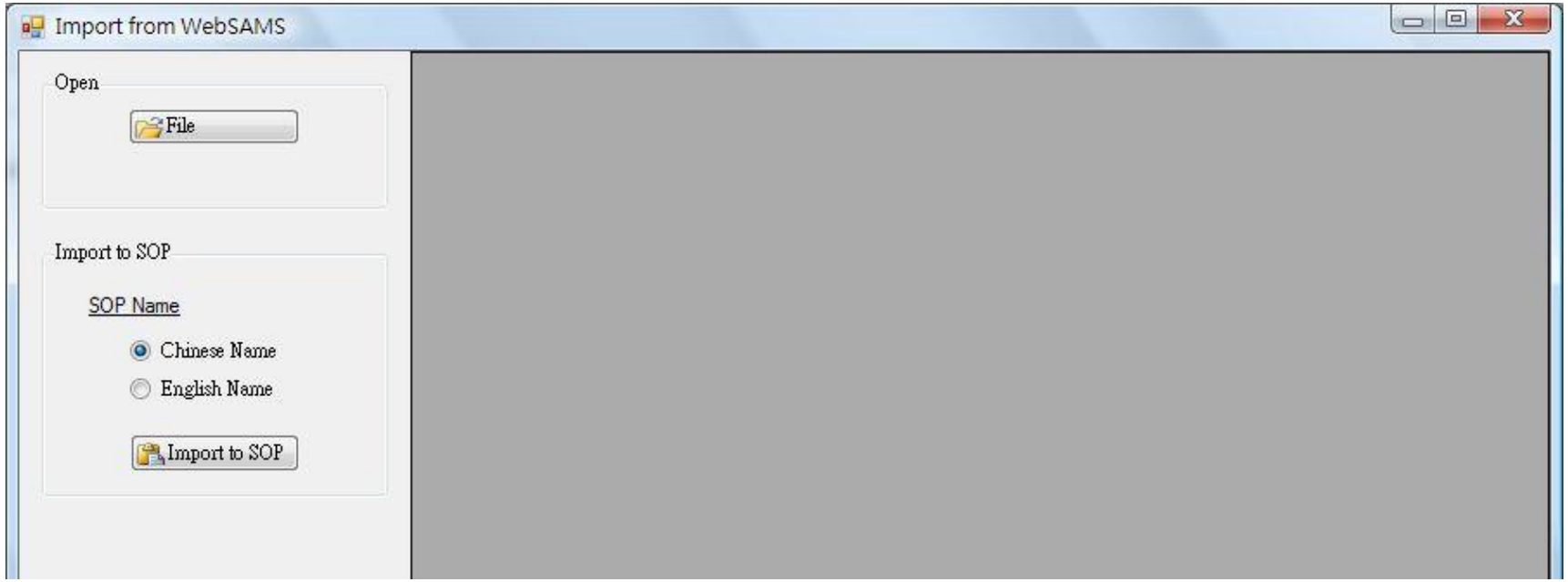

ation
Timetable
Report
Acces
Print Timetable

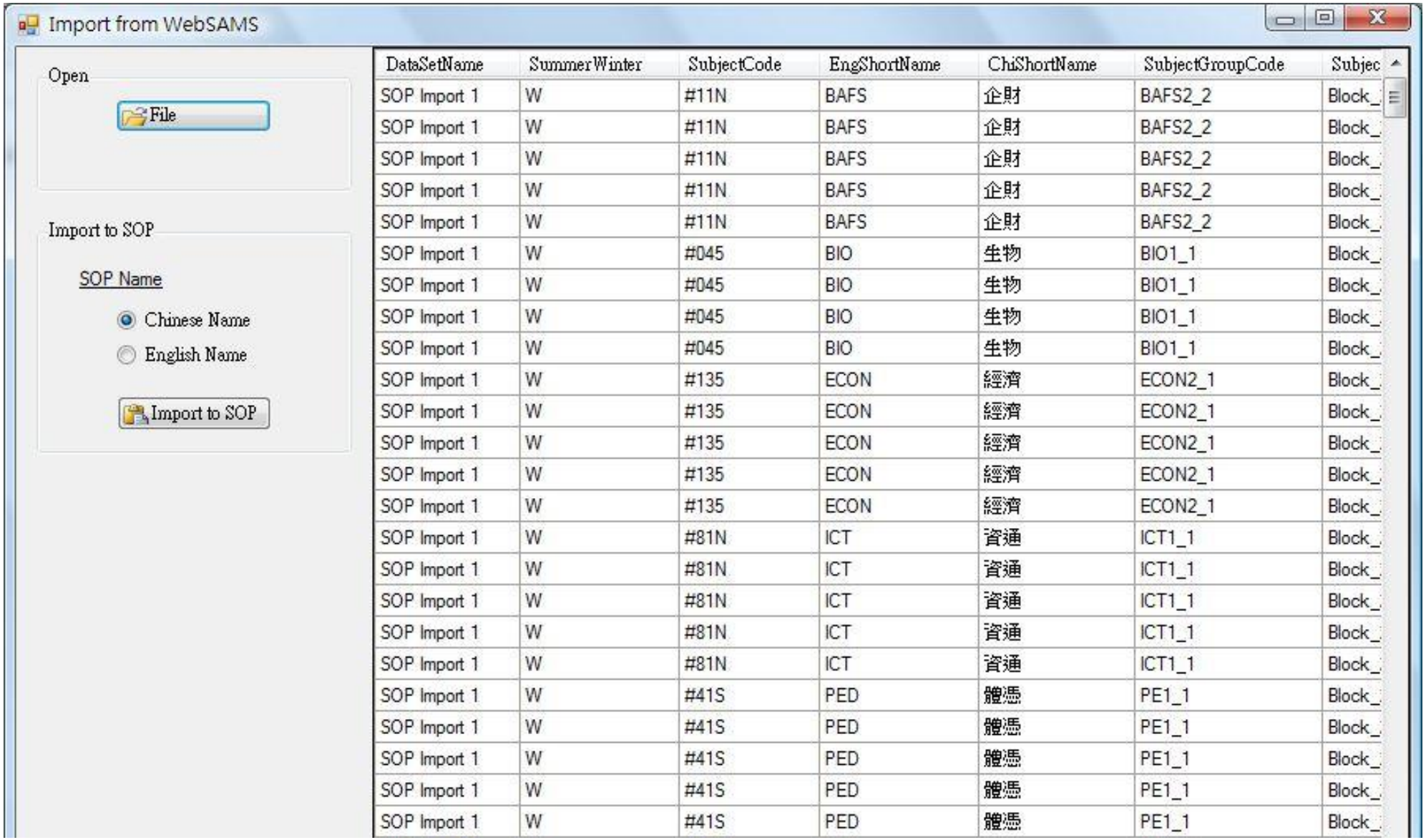

Import from WebSAMS



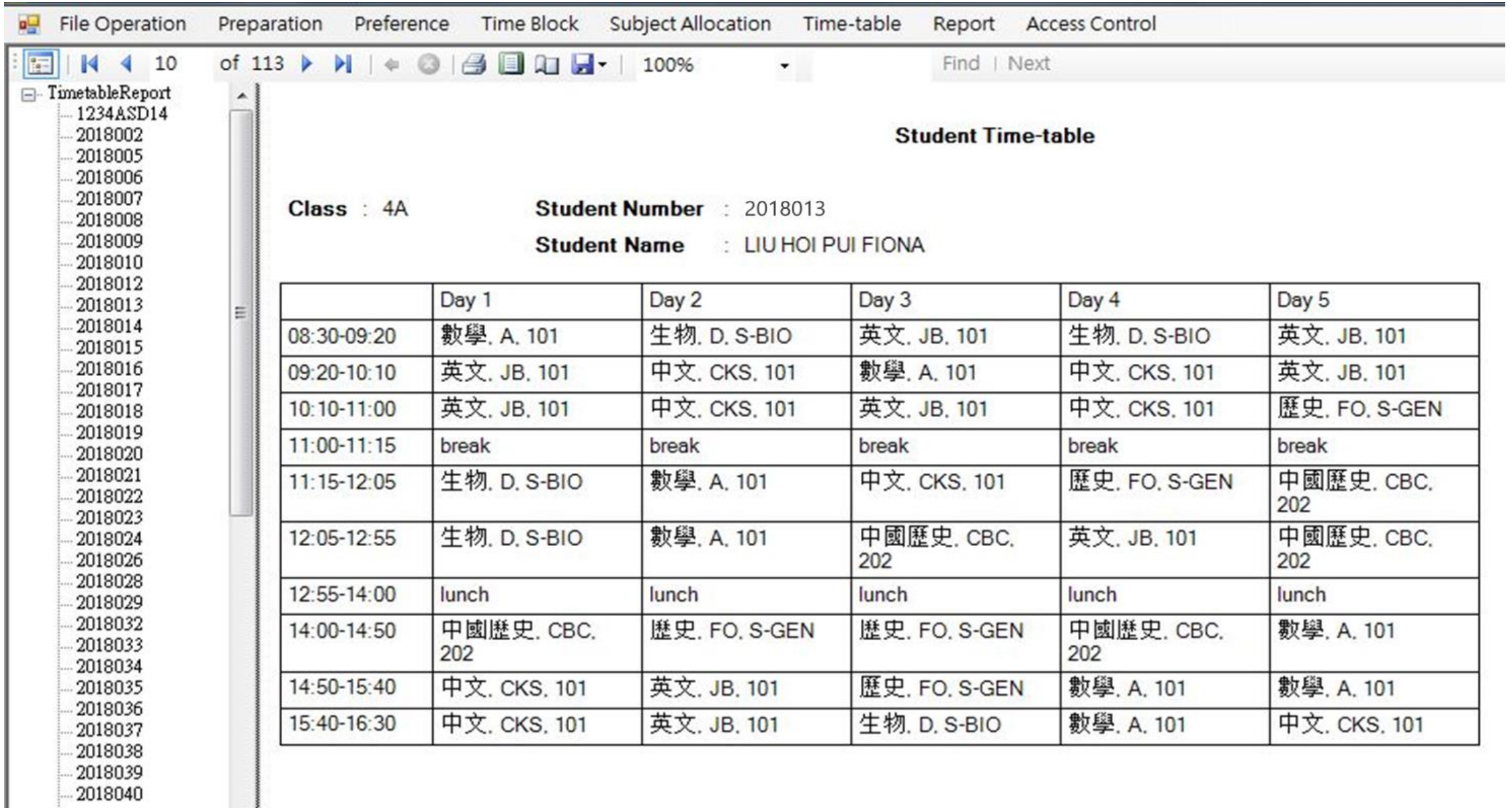

File Operation
Preparation
Preference
Time Block
Subject Allocation
Timetable
Import from WebSAMS
Import from Other Sources
Export
Print Preview
Select Timetable
Filter and Sorting
Student Class from
to
Student Number from
to
Sort Order
Student Name
Student Number

Timetable


Import from WebSAMS
Open
File
Import to SOP
SOP Name
Chinese Name
English Name
Import to SOP



DataSetName	SummerWinter	SubjectCode	EngShortName	ChiShortName	SubjectGroupCode	Subjec
SOP Import 1	W	#11N	BAFS	企財	BAFS2_2	Block_
SOP Import 1	W	#11N	BAFS	企財	BAFS2_2	Block_
SOP Import 1	W	#11N	BAFS	企財	BAFS2_2	Block_
SOP Import 1	W	#11N	BAFS	企財	BAFS2_2	Block_
SOP Import 1	W	#11N	BAFS	企財	BAFS2_2	Block_
SOP Import 1	W	#045	BIO	生物	BIO1_1	Block_
SOP Import 1	W	#045	BIO	生物	BIO1_1	Block_
SOP Import 1	W	#045	BIO	生物	BIO1_1	Block_
SOP Import 1	W	#045	BIO	生物	BIO1_1	Block_
SOP Import 1	W	#135	ECON	經濟	ECON2_1	Block_
SOP Import 1	W	#135	ECON	經濟	ECON2_1	Block_
SOP Import 1	W	#135	ECON	經濟	ECON2_1	Block_
SOP Import 1	W	#135	ECON	經濟	ECON2_1	Block_
SOP Import 1	W	#135	ECON	經濟	ECON2_1	Block_
SOP Import 1	W	#81N	ICT	資通	ICT1_1	Block_
SOP Import 1	W	#81N	ICT	資通	ICT1_1	Block_
SOP Import 1	W	#81N	ICT	資通	ICT1_1	Block_
SOP Import 1	W	#81N	ICT	資通	ICT1_1	Block_
SOP Import 1	W	#81N	ICT	資通	ICT1_1	Block_
SOP Import 1	W	#41S	PED	體憑	PE1_1	Block_
SOP Import 1	W	#41S	PED	體憑	PE1_1	Block_
SOP Import 1	W	#41S	PED	體憑	PE1_1	Block_
SOP Import 1	W	#41S	PED	體憑	PE1_1	Block_
SOP Import 1	W	#41S	PED	體憑	PE1_1	Block_



Student Time-table

Class : 4A **Student Number** : 2018013

Student Name : LIU HOI PUI FIONA

	Day 1	Day 2	Day 3	Day 4	Day 5
08:30-09:20	數學. A. 101	生物. D. S-BIO	英文. JB. 101	生物. D. S-BIO	英文. JB. 101
09:20-10:10	英文. JB. 101	中文. CKS. 101	數學. A. 101	中文. CKS. 101	英文. JB. 101
10:10-11:00	英文. JB. 101	中文. CKS. 101	英文. JB. 101	中文. CKS. 101	歷史. FO. S-GEN
11:00-11:15	break	break	break	break	break
11:15-12:05	生物. D. S-BIO	數學. A. 101	中文. CKS. 101	歷史. FO. S-GEN	中國歷史. CBC. 202
12:05-12:55	生物. D. S-BIO	數學. A. 101	中國歷史. CBC. 202	英文. JB. 101	中國歷史. CBC. 202
12:55-14:00	lunch	lunch	lunch	lunch	lunch
14:00-14:50	中國歷史. CBC. 202	歷史. FO. S-GEN	歷史. FO. S-GEN	中國歷史. CBC. 202	數學. A. 101
14:50-15:40	中文. CKS. 101	英文. JB. 101	歷史. FO. S-GEN	數學. A. 101	數學. A. 101
15:40-16:30	中文. CKS. 101	英文. JB. 101	生物. D. S-BIO	數學. A. 101	中文. CKS. 101

Break

SOP

Strategies for Handling Special Cases

SOP

Special Case 1

	4A	4B	4C	4D
Block 1 (4)	化學、經濟、旅遊與款待、企業、會計與財務概論（商業組）			
Block 2 (5)	生物、化學、地理、企業、會計與財務概論（會計組）、資訊及通訊科技			
Block 3 (6)	物理、化學、中國歷史、經濟、設計與應用科技、視覺藝術			

How to allocate BAFS (Business) and BAFS (Accounting) to students without duplication?

Tricks & Tips

Different MOI

歷史	歷史	☐	☐
旅遊	旅遊與款待	☑	☐
企業	企業、會計與財務概論	☑	☑
設計	設計與應用科技	☑	☐
健社	健康管理與社會關懷	☐	☐
資訊	資訊及通訊科技	☑	☐

Subject	Max Size	No. of Groups	NOR*	1	2	3	4	5	6	Total
生物	40	2	47	7	19	21	10	9	20	86
化學	40	2	45	21	7	18	10	13	15	84
物理	40	2	41	19	5	17	15	18	6	80
文學	40	1	42	11	12	19	26	30	18	116
中史	40	1	41	14	11	16	2	6	0	49
經濟	40	2	80	32	35	12	23	14	16	132
地理	40	1	42	9	22	11	33	32	41	148
歷史	40	1	39	13	17	9	29	27	37	132
企業	40	1	78	29	28	21	20	21	29	148
BAFS	40	0	0	0	0	0	0	0	0	0
設計	40	1	31	4	14	13	10	0	3	44
健社	40	1	34	9	6	19	9	9	6	58
資訊	40	2	77	31	23	23	12	20	8	117

Tricks & Tips

- Since 企業 & BAFS are **overlapping/ forbidden combinations**, SOP will not allocate both subjects to the same student.
- Using 企業 & BAFS to represent different modules.

Special Case 2

	4A	4B	4C	4D
Block 1 (4)	化學、經濟、旅遊與款待、企業、會計與財務概論（商業組）			
Block 2 (5)	生物、化學、地理、企業、會計與財務概論（會計組）、資訊及通訊科技			
Block 3 (6)	物理、化學、中國歷史、經濟、設計與應用科技、視覺藝術			

Can school allocate subjects to top 40 students by using 'Choice 3' and the remaining students by using 'Choice 1' ?

Tricks & Tips

1. Select the top 40 students

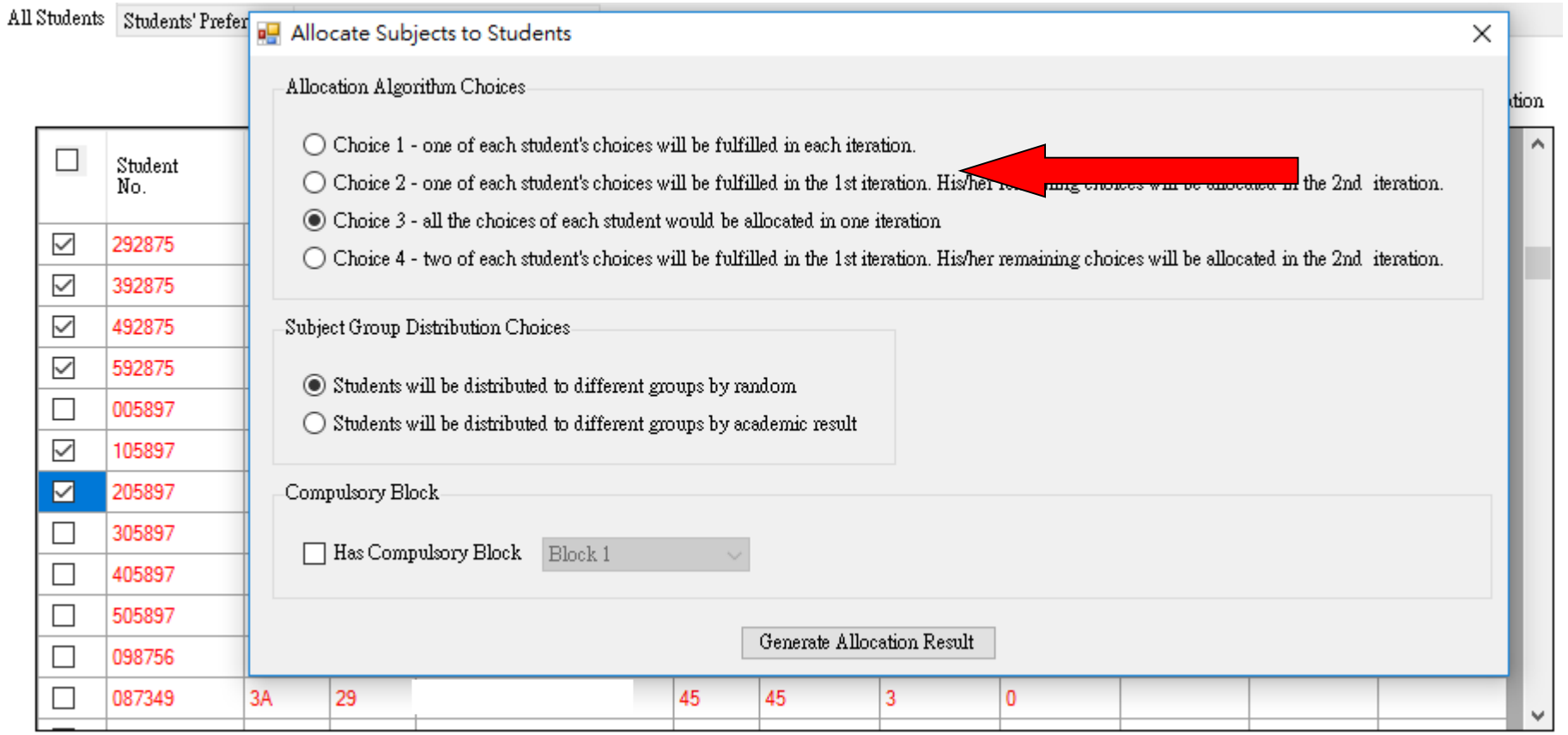
Partial Allocation

All Students | Students' Preference | Students Allocated to Subject Group

Violet Color Background - Compulsory block unallocated
Red Font - students with insufficient allocation

	Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3
☑	292875	3B	26		34	34	3	0			
☑	392875	3C	25		35	35	3	0			
☑	492875	3D	25		36	36	3	0			
☑	592875	3E	25		37	37	3	0			
☑	005897	3A	26		38	38	3	0			
☑	105897	3A	27		39	39	3	0			
☑	205897	3B	28		40	40	3	0			
☐	305897	3C	27		41	41	3	0			
☐	405897	3D	27		42	42	3	0			
☐	505897	3E	27		43	43	3	0			
☐	098756	3A	28		44	44	3	0			
☐	087349	3A	29		45	45	3	0			

2. Use ‘Choice 3’ to allocate subjects to the top 40 students



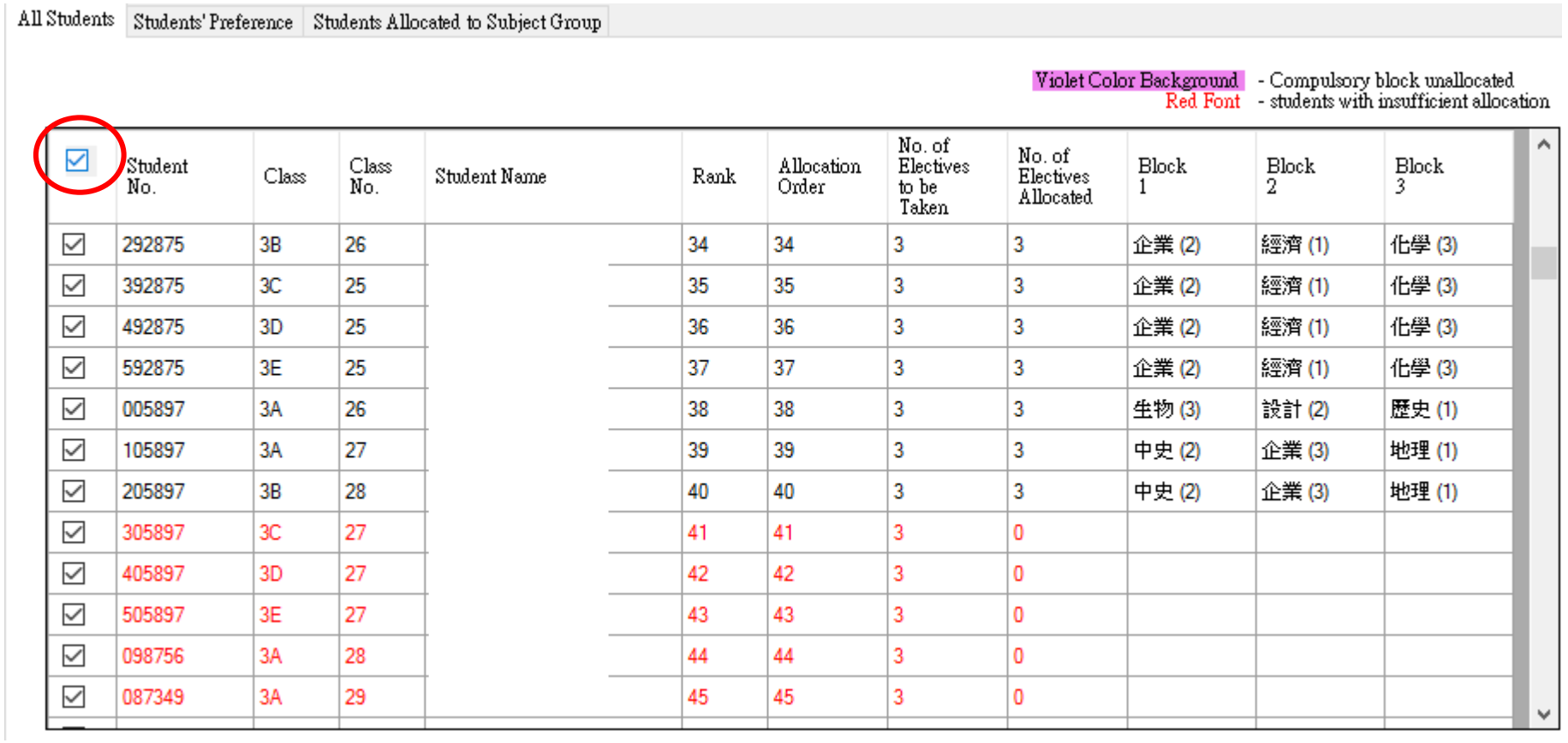
Only the top 40 students will be allocated with subjects

All Students | Students' Preference | Students Allocated to Subject Group

Violet Color Background - Compulsory block unallocated
Red Font - students with insufficient allocation

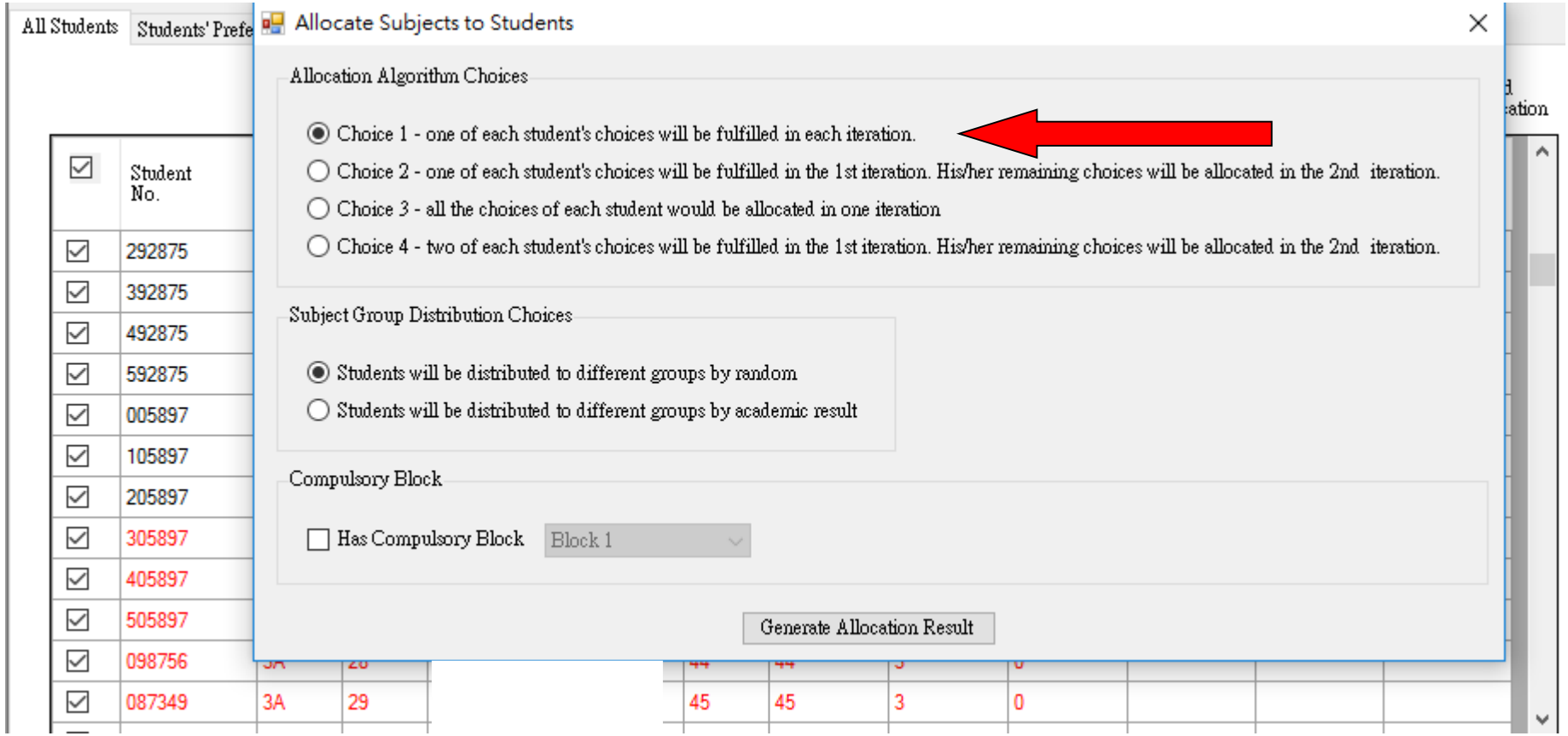
Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3
292875	3B	26		34	34	3	3	企業 (2)	經濟 (1)	化學 (3)
392875	3C	25		35	35	3	3	企業 (2)	經濟 (1)	化學 (3)
492875	3D	25		36	36	3	3	企業 (2)	經濟 (1)	化學 (3)
592875	3E	25		37	37	3	3	企業 (2)	經濟 (1)	化學 (3)
005897	3A	26		38	38	3	3	生物 (3)	設計 (2)	歷史 (1)
105897	3A	27		39	39	3	3	中史 (2)	企業 (3)	地理 (1)
205897	3B	28		40	40	3	3	中史 (2)	企業 (3)	地理 (1)
305897	3C	27		41	41	3	0			
405897	3D	27		42	42	3	0			
505897	3E	27		43	43	3	0			
098756	3A	28		44	44	3	0			
087349	3A	29		45	45	3	0			

3. Select all students for allocating subjects



Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3
292875	3B	26		34	34	3	3	企業 (2)	經濟 (1)	化學 (3)
392875	3C	25		35	35	3	3	企業 (2)	經濟 (1)	化學 (3)
492875	3D	25		36	36	3	3	企業 (2)	經濟 (1)	化學 (3)
592875	3E	25		37	37	3	3	企業 (2)	經濟 (1)	化學 (3)
005897	3A	26		38	38	3	3	生物 (3)	設計 (2)	歷史 (1)
105897	3A	27		39	39	3	3	中史 (2)	企業 (3)	地理 (1)
205897	3B	28		40	40	3	3	中史 (2)	企業 (3)	地理 (1)
305897	3C	27		41	41	3	0			
405897	3D	27		42	42	3	0			
505897	3E	27		43	43	3	0			
098756	3A	28		44	44	3	0			
087349	3A	29		45	45	3	0			

4. Use ‘Choice 1’ to allocate subjects to all students



Better satisfaction rate for the top 40 students

All Students | Students' Preference | Students Allocated to Subject Group

Violet Color Background - Compulsory block unallocated
Red Font - students with insufficient allocation

☑	Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3
☑	592875	3E	25		37	37	3	3	企業 (2)	經濟 (1)	化學 (3)
☑	005897	3A	26		38	38	3	3	生物 (3)	設計 (2)	歷史 (1)
☑	105897	3A	27		39	39	3	3	中史 (2)	企業 (3)	地理 (1)
☑	205897	3B	28		40	40	3	3	中史 (2)	企業 (3)	地理 (1)
☑	305897	3C	27		41	41	3	3	中史 (2)	企業 (3)	地理 (1)
☑	405897	3D	27		42	42	3	3	中史 (2)	企業 (3)	資訊 (1)
☑	505897	3E	27		43	43	3	3	中史 (2)	企業 (3)	資訊 (1)
☑	098756	3A	28		44	44	3	3	企業 (1)	設計 (3)	經濟 (2)
☑	087349	3A	29		45	45	3	3	資訊 (4)	文學 (2)	地理 (1)
☑	187349	3A	30		46	46	3	3	中史 (3)	企業 (2)	經濟 (1)
☑	287349	3B	31		47	47	3	3	中史 (3)	企業 (2)	經濟 (1)
☑	387349	3C	30		48	48	3	3	中史 (3)	企業 (2)	經濟 (1)

Tricks & Tips

- Subjects allocated to the top 40 students in the 1st allocation will remain **unchanged** in the 2nd allocation of subjects to all students.
- Subjects can be allocated to students in different allocations and using different allocation methods.

Special Case 3

- 5 classes in S4
- 3 blocks of elective subjects
- **1 class (40 students) – 3X ;**

  4 classes – 2X

Tricks & Tips

School Based Subjects

Block 1 (4)	4B	4C	4E	4A	4D
	化學(30)/ 物理(24)/ 化學(30)/ 歷史(30)				
Block 2 (5)	4A	4B	4D	4E	
	生物(30)/ 物理(30)/ 文學(30)/ 中史(15)/ 旅遊(30)/ 資訊(21)				
Block 3 (6)	4A	4C	4D	4E	
	生物(26)/ 中史(19)/ 經濟(30)/ 地理(30)/ 資訊(30)/ 視藝(30)				

Students allocated to **4 dummy subject groups** will be assigned to 4 classes respectively. Students of 4A, 4B, 4C & 4D take 2X. Students of 4E take 3X.

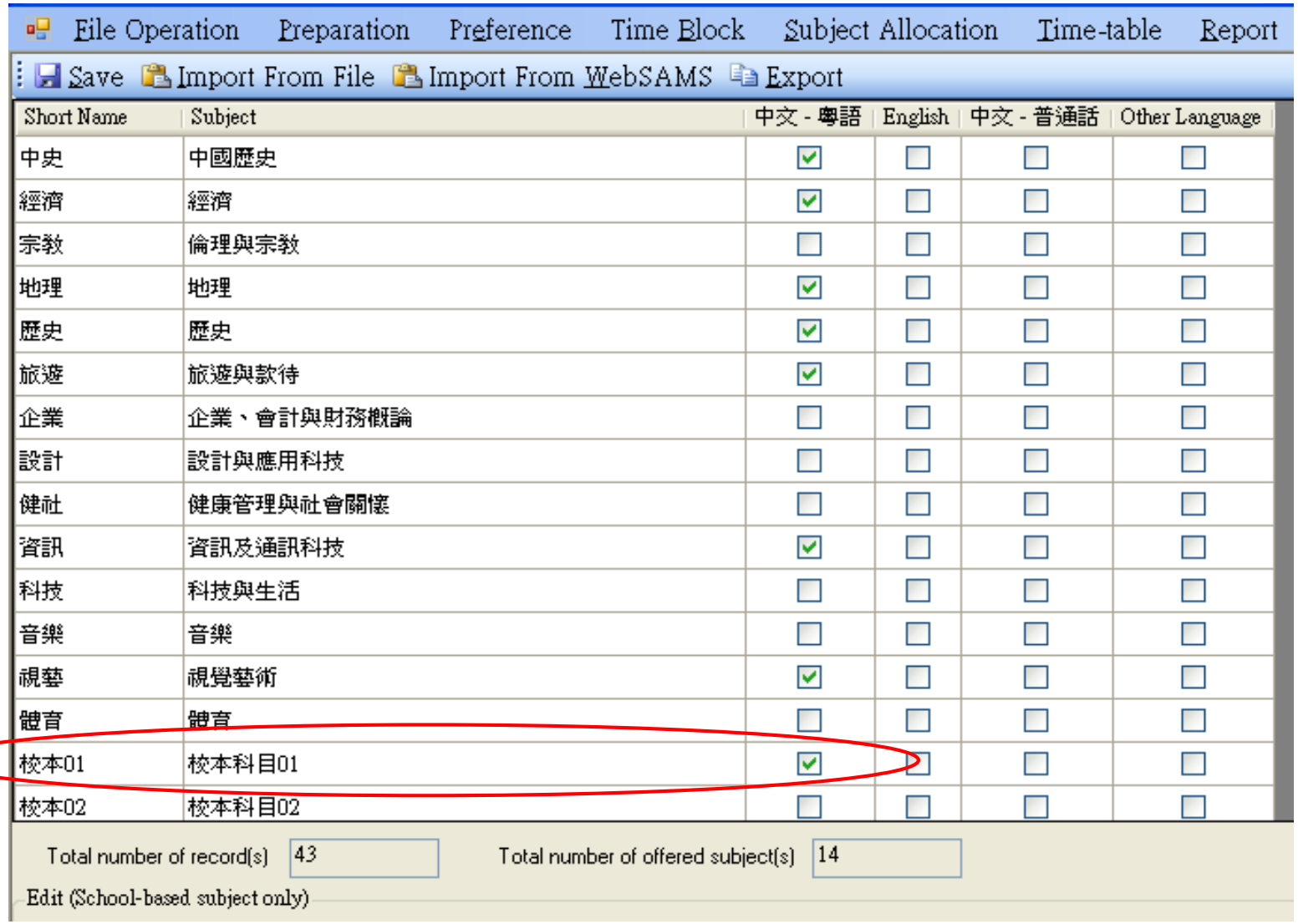
1. Add a School-based subject to students study 2X

Student Number	Student Name	Num of Electives	SB011
7211xxxx	YEE XX	3	
7216xxxx	WU XX	3	
P630xxxx	TANG XX	2	1
P646xxxx	LAW XX	2	1
P984xxxx	LIU XX	2	1
R112xxxx	YUEN XX	2	1
R121xxxx	WONG XX	2	1
R149xxxx	YAU XX	2	1
R162xxxx	LAM XX	2	1

2. Set all students study 3X

	A	B	C	D	E	F	G	H
1	Student Number	Student Name	Gender	Class	Class Number	Next Year Class	Rank	Num of Electives
2	72111949		F	3B			43	3
3	72163547		M	3B			17	3
4	P6309686		M	3B			125	3
5	P6464908		M	3D			190	3
6	P9846151		M	3A			83	3
7	R1123601		M	3C			74	3
8	R1211551		M	3B			56	3
9	R1494065		M	3D			180	3
10	R1621997		M	3A			174	3
11	R1684247		M	3E			22	3
12	R1745106		M	3C			163	3
13	R1760962		M	3C			143	3
14	R1814906		M	3B			53	3
15	R1836950		M	3D			75	3
16	R2348933		M	3E			34	3
17	R2410892		M	3C			111	3
18	R2421177		M	3B			107	3
19	R2527552		M	3A			148	3
20	R2555858		M	3A			162	3
21	R2582057		M	3A			189	3
22	R2706325		M	3A			38	3
23	R2716126		M	3A			40	3
24	R2873337		M	3D			160	3

3. Check the box of SB01



4. Setup subject groups & Max. Size

Subject Group Setup Table

Subject	Max Size	No. of Groups	NOR*	1	2	3	4	5	6	Total
生物	40	2	47	7	19	21	10	9	20	86
化學	40	2	45	21	7	18	10	13	15	84
物理	40	2	41	19	5	17	15	18	6	80
文學	40	1	42	11	12	19	26	30	18	116
中史	40	1	41	14	11	16	2	6	0	49
經濟	40	2	80	32	35	12	23	14	16	132
地理	40	1	42	9	22	11	33	32	41	148
歷史	40	1	39	13	17	9	29	27	37	132
企業	40	2	78	29	28	21	20	21	29	148
設計	40	1	21	4	14	13	10	0	3	44
健社	40	1	34	9	6	19	9	9	6	58
資訊	40	2	77	31	23	23	12	20	8	117

* NOR - Number of Requests according to the number of electives students need to take

Number of subject groups in each Time Block

Block	No. of Groups
1	6
2	6
3	6

Total number of blocks 3

Total number of groups 18

*** Remarks: the Sum of Number of Groups must equal to total number of groups ***

5. Generate time blocks

Subject Group	Block 1	Block 2	Block 3
生物 - 生物 組別 1	BIO1_1		
生物 - 生物 組別 2		BIO1_2	
化學 - 化學 組別 1			CHEM1_1
化學 - 化學 組別 2	CHEM1_2		
物理 - 物理 組別 1		PHY1_1	
物理 - 物理 組別 2	PHY1_2		
中國文學 - 文學		CLIT1_1	
中國歷史 - 中史	CHIS1_1		
經濟 - 經濟 組別 1		ECON1_1	
經濟 - 經濟 組別 2			ECON1_2
地理 - 地理			GEO1_1
歷史 - 歷史			HIST1_1
企業、會計與財務概論 - 企業 組別 1	BAFS1_1		
企業、會計與財務概論 - 企業 組別 2		BAFS1_2	
設計與應用科技 - 設計		DAT1_1	
健康管理與社會關懷 - 健社			HMSC1_1
資訊及通訊科技 - 資訊 組別 1	ICT1_1		
資訊及通訊科技 - 資訊 組別 2			ICT1_2

Tricks & Tips

Use of Dummy Students

	4A	4B	4C	4D	Max Size
Block 1 (4)	Phy	Chem	Econ	BAFS	40@
Block 2 (6)	Chem / Bio / M1 / Hist / ICT / BAFS				30@
Block 3 (6)	Phy / Bio / 中史 / Geog / ICT / Econ				30@
Block 4 (4)	ERS / VA / PE / Music				30@

- SOP cannot set **same subject with different Max Size**
- Therefore, all highlighted subjects will be set with Max Size as 40
- Dummy students will be created.
- Extra quota will be pre-allocated to the dummy students.

1. Allocate dummy students to subjects in block 2 and block 3 to limit the class size manually

Selected Student

Student Number D01 Student Name D01 Rank 0

All Students | Students' Preference | Students Allocated to Subject Group

Subject	Priority	Sub-priority	Block 1	Block 2	Block 3	Block 4
Biology				0/30	0/30	
Chemistry			0/40	**10/40**		
Physics			0/40		**10/40**	
Science: Combined Science (Biology and Chemistry)				0/30		
中國歷史					0/30	

Student No.	Class	Class No.	Student Name	Rank	Allocation Order	No. of Electives to be Taken	No. of Electives Allocated	Block 1	Block 2	Block 3	Block 4
3D37	3D			149	149	3	0				
3D38	3D			125	125	4	0				
3D39	3D			68	68	3	0				
D01	3S		D01	0		2	2		CHEM ()	PHY ()	
D02	3S		D02	0		2	2		BAFS ()	ECON ()	
D03	3S		D03	0		2	2		CHEM ()	PHY ()	
D04	3S		D04	0		2	2		BAFS ()	ECON ()	
D05	3S		D05	0		2	2		CHEM ()	PHY ()	
D06	3S		D06	0		2	2		BAFS ()	ECON ()	
D07	3S		D07	0		2	2		CHEM ()	PHY ()	
D08	3S		D08	0		2	2		BAFS ()	ECON ()	

School-based SS elective subject allocation and timetabling practices

SOP

School-based SS elective subject allocation and timetabling practices

School A

Design time block and calculate satisfaction rate by using SOP

Allocate subjects manually (by subject queue) with aid of a self-developed webpage

School B

Design time block by self-developed VBA programme to find the best combination

Allocate subjects by SOP and fine-tune the results manually

School C

Design the time block and allocate subject by self-created formulae in MS Excel and VBA

Students prioritise their options by choosing each set of 3 elective subjects (3Xs) from more than 100 combinations

School-based SS elective subject allocation and timetabling practices

X1: from high rank to low rank
X2: from low rank to high rank
X3: from high rank to low rank

Tap on school resources e.g. seeking support from alumni of the IT industry to tailor make a school-based programme for subject allocation

Fixed time block for the benefit of repeaters and resolve other school constraints

Using google sheet for designing time block and subject allocation

Using self-developed programmes for subject allocation and self-developed webpage/ tools for calculation of the satisfaction rate

Using MS Excel for designing time block and allocate subject manually

School Sharing

SOP 2.0

SOP

Re-development of SOP 2023

Generating better time block structure to achieve higher satisfaction rate

One more subject allocation method (by overall ranking & by subject queue)

Re-development of SOP 2023

Office

Compatible with the latest Windows and Office versions and new user interface

Dummy students and dummy subjects no longer required

Subject	Priority	Sub-priority	Block 1	Block 2	Block 3
生物	6	1	35/40	36/40	
化學	6	3		35/40	28/40
物	6	2	34/40		32/40
中國文學	5		40/40		
中國歷史	2				37/40
經濟				40/40	
地理					
Geography					
歷史					
企業、會計與財務概論					
Business, Accounting and Financial General Knowledge					
設計與應用科技					
健康管理與社會關懷					
資訊及通訊科技	4				40/40
空堂 (Dummy subject)			2/40	0/40	0/40
			177/240	178/240	177/240

Student Number	Student Name	Gender	Class
001094	DUMMY STUDENT 1	F	3A
004869	DUMMY STUDENT 2	F	3A
005897	DUMMY STUDENT 3	F	3A
008405	DUMMY STUDENT 4	M	3A
009275	DUMMY STUDENT 5	M	3A

Re-development of SOP 2023

- Views are welcome for enhancing the SOP.

  Please contact Ms Rita KUO at 2892 5947 or by email at nas@edb.gov.hk

Q & A

Discussion

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ENQUIRY

Thank You