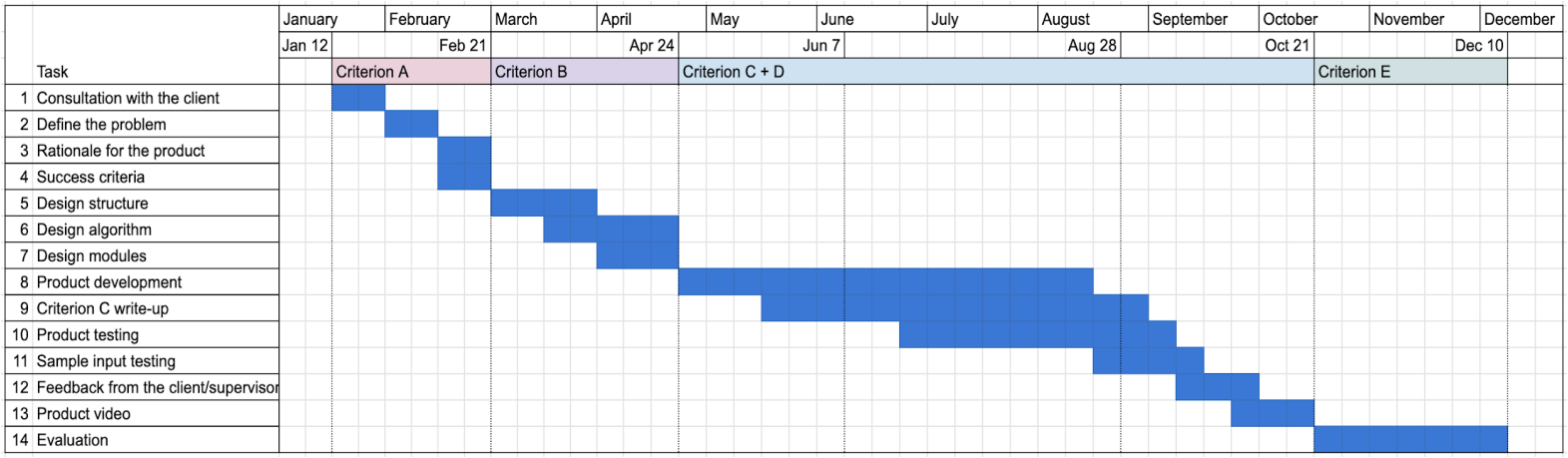
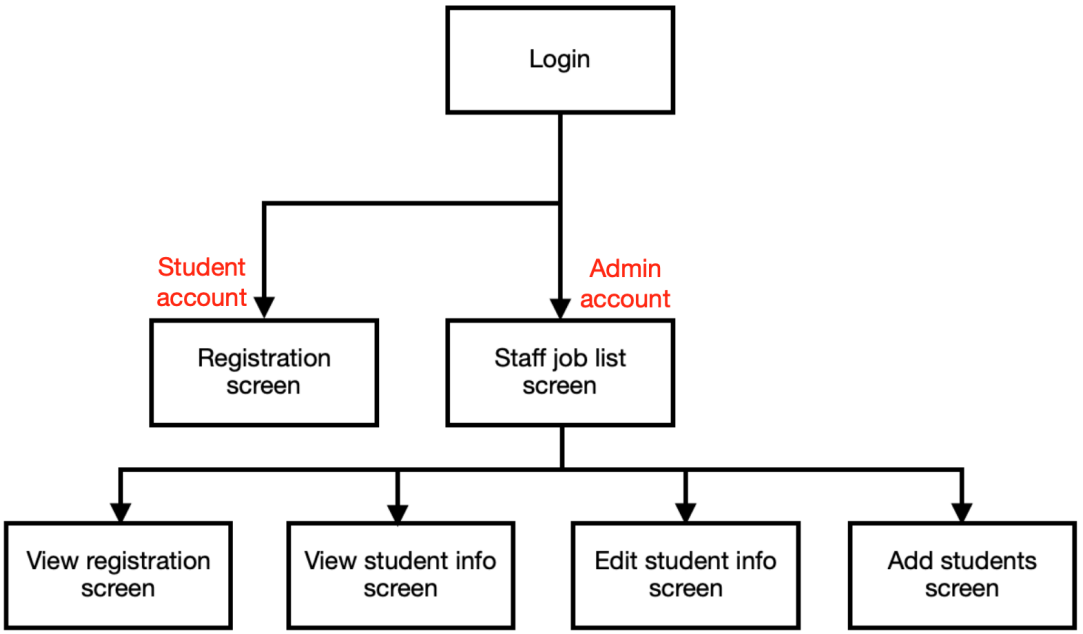
Gantt Chart



System storyboard



Data structure

Student information

Field name	Data type	Information	Validation	Example
name	String	Student name	-	Junhee Lee
yeargroup	Integer	Student's year group	Must be 12 or 13; dropdown box given to the users to choose between 12 and 13.	12
roomNo	Integer	Student's room number	Must be a three-digit number less than 500.	213

Place information

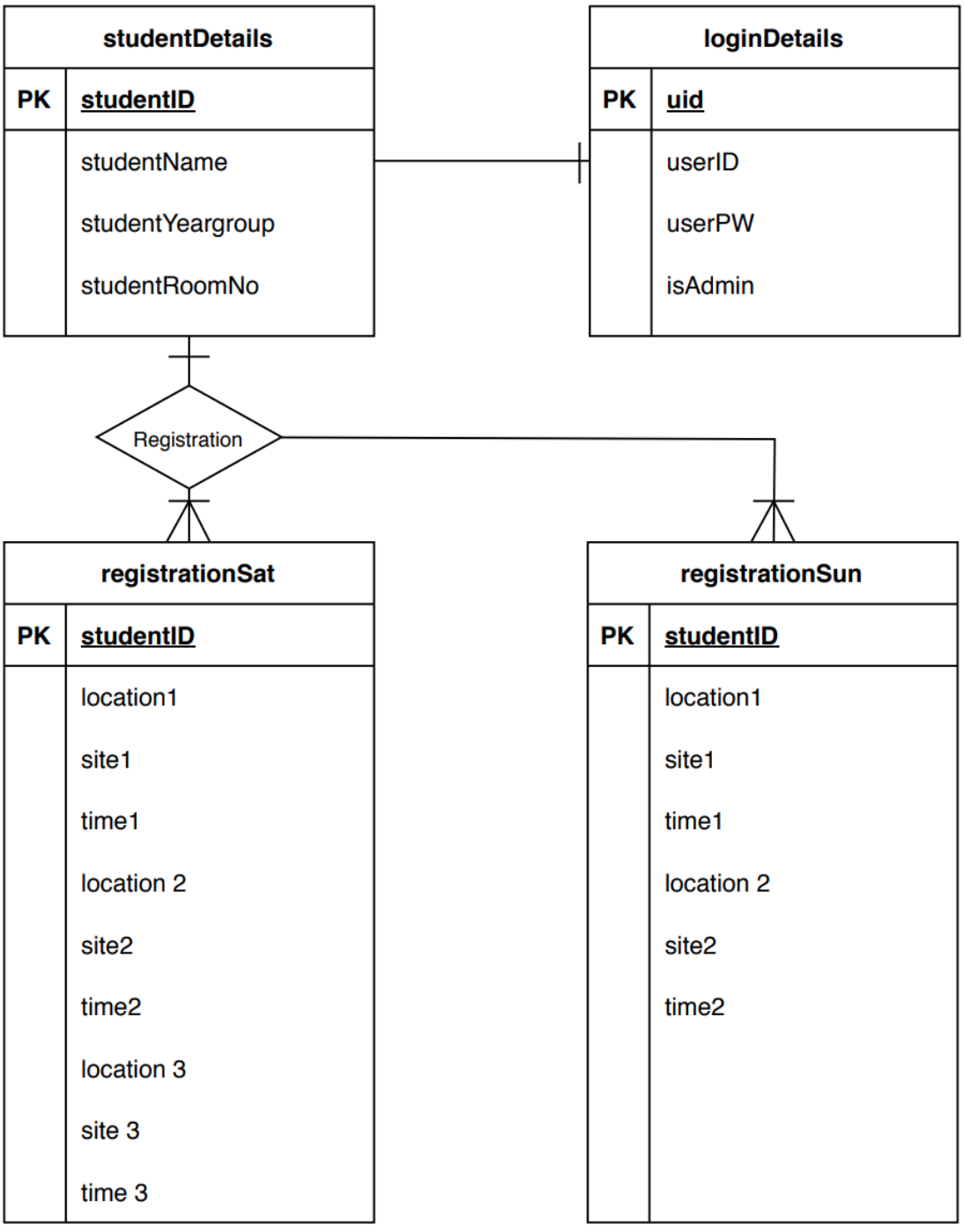
Field name	Data type	Information	Validation	Example
inSite	String	In-site locations around the school	Lists of locations are entered to the system in advance. Must be chosen between them.	Canteen
offSite	String	Off-site locations around Jeju		Starbucks

Login details

Field name	Data type	Information	Validation	Example
userID	String	ID of the user	Must be unique; there cannot be more than one user using the same ID.	160815
userPW	String	Password of the user	There must be a password for each user account.	jheelee21

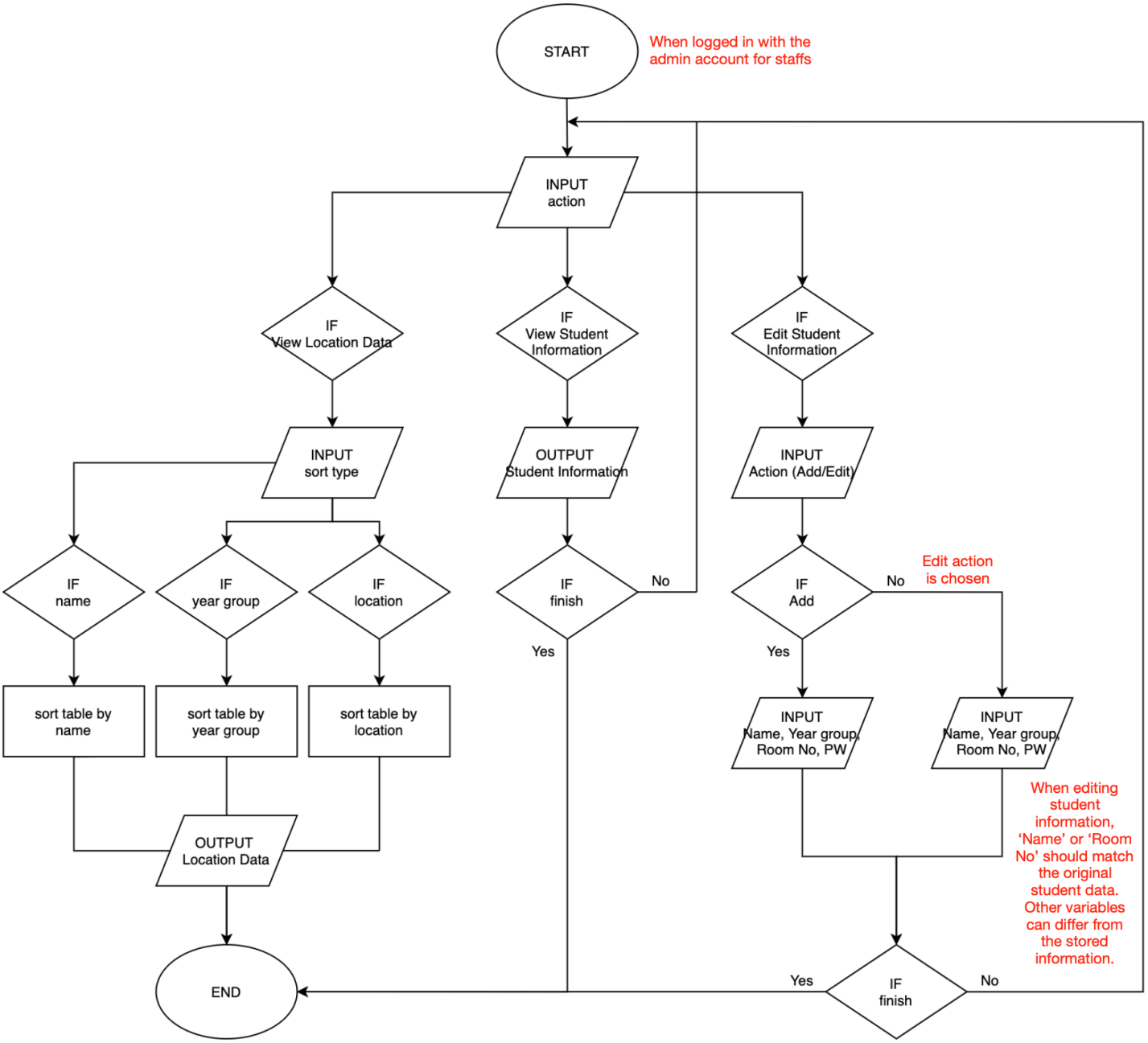
Entity-relationship diagram

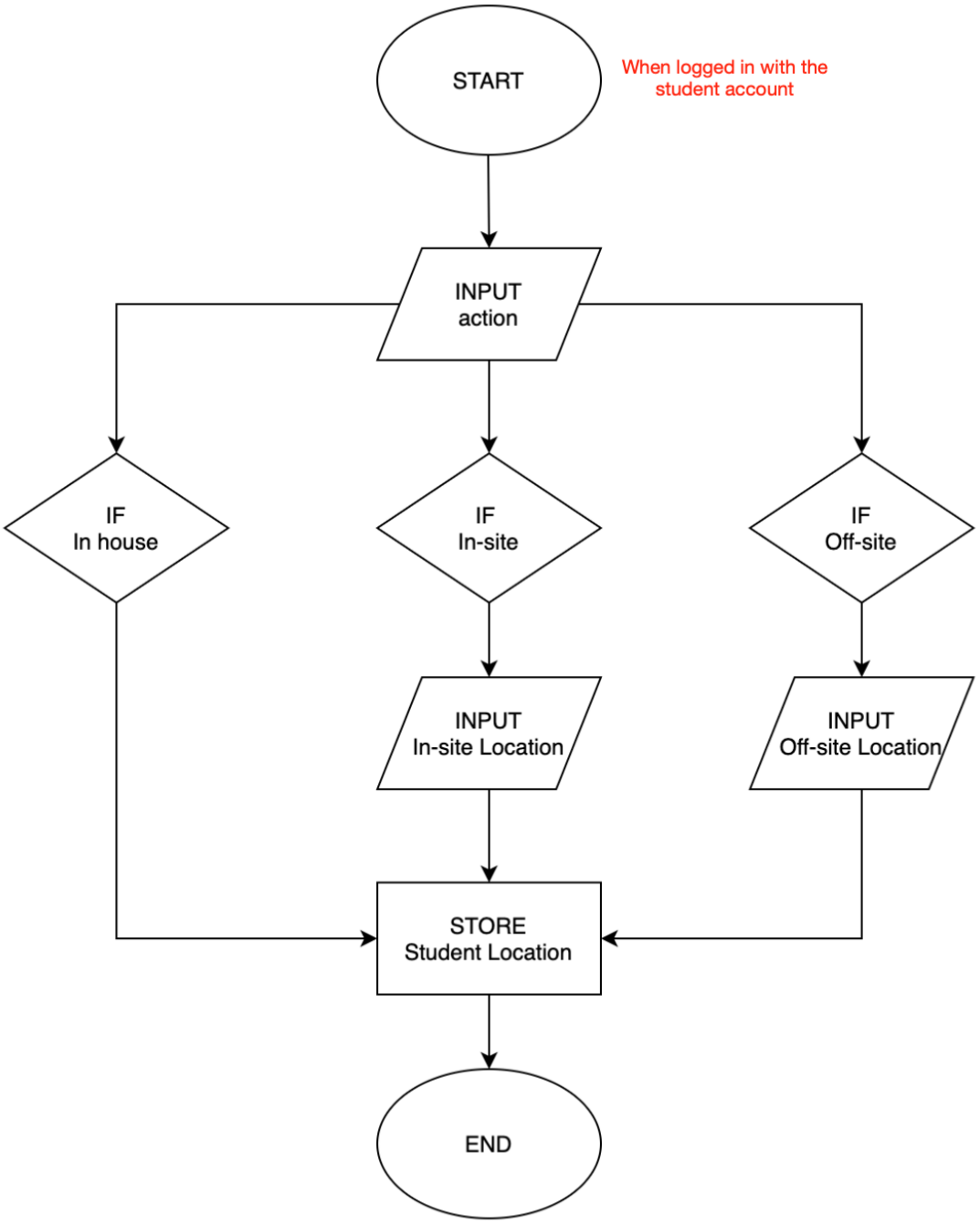
This design was created using ‘draw.io’.



Flow chart

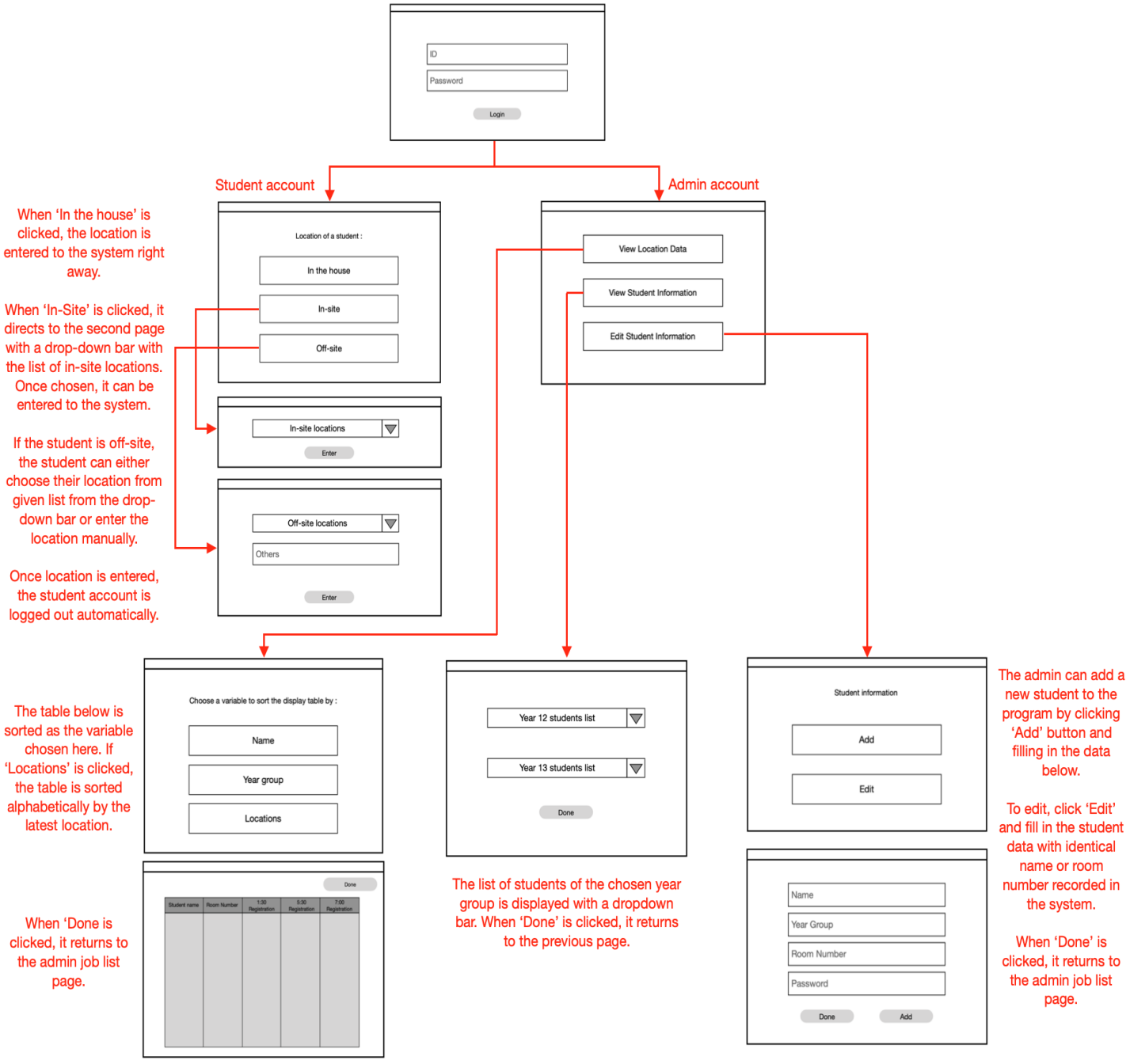
This design was created using ‘draw.io’.




START
When logged in with the student account
INPUT action
IF In house
IF In-site
IF Off-site
INPUT In-site Location
INPUT Off-site Location
STORE Student Location
END

Screen layout

This design was created using ‘Pages’.



Test plan

Test number	Description	Success criteria	Instructions	Expected results
1	Log in with a staff account	1	Input ID and password for staff	The staff should be able to reach the staff main page without an error message.
2	Log in with student account	6	Input ID and password for student	The student should be able to reach the location registering page without an error message.
3	Add/edit student information	2	Input student information	The user should be able to successfully enter or edit the details of the students.
4	Registration process	7	Input student location	The user should be able to enter the student location and return time for each registration.
5	Repeat registration process	7	Input student location at different time boundaries	The user should be able to repeat the registration process three times a day on Saturday and twice a day on Sunday.
6	Select action	4	Input action by a button provided from GUI	The user should be able to click on a button when choosing an action.
7	Visual presentation	3	Check ‘View registration’ page and ‘View student details’ page	The user should be able to view a table of students and their locations.
8	Reset registration data	5	Click reset button	The student location data should be erased from the table and the database.
9	Sort data in the table	4	Click the sorting method from the given choices	The program successfully sorts the table of user’s choice in the correct order.