

## Criterion B

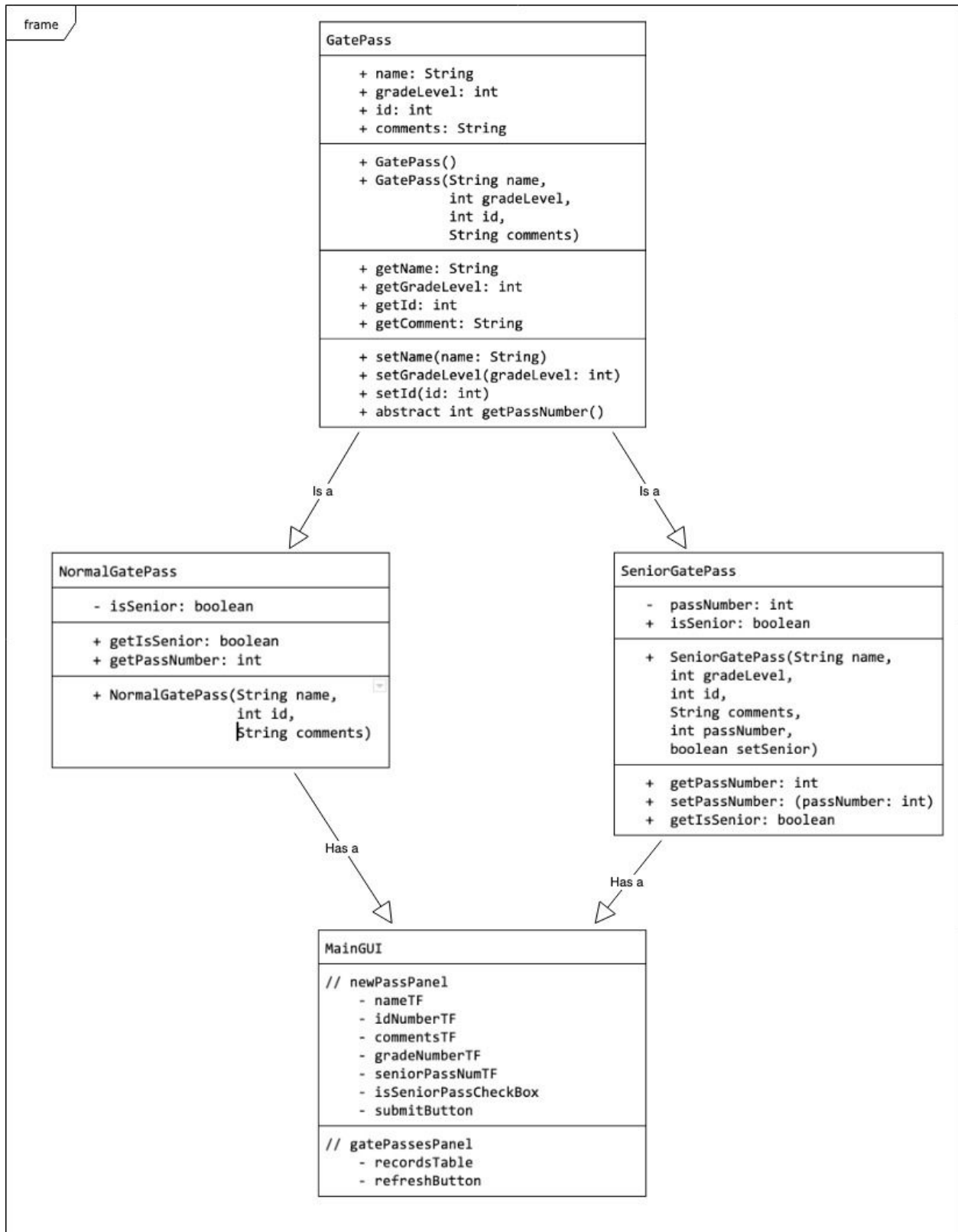
### Inputs:

Input	Data Type	Example
Name	String	"John Rayworth"
Senior gate pass number	String	1234
Grade level	String	11
Comments	String	"foobar"
ID number	String	1234
Senior gate pass checkbox	boolean	true/false

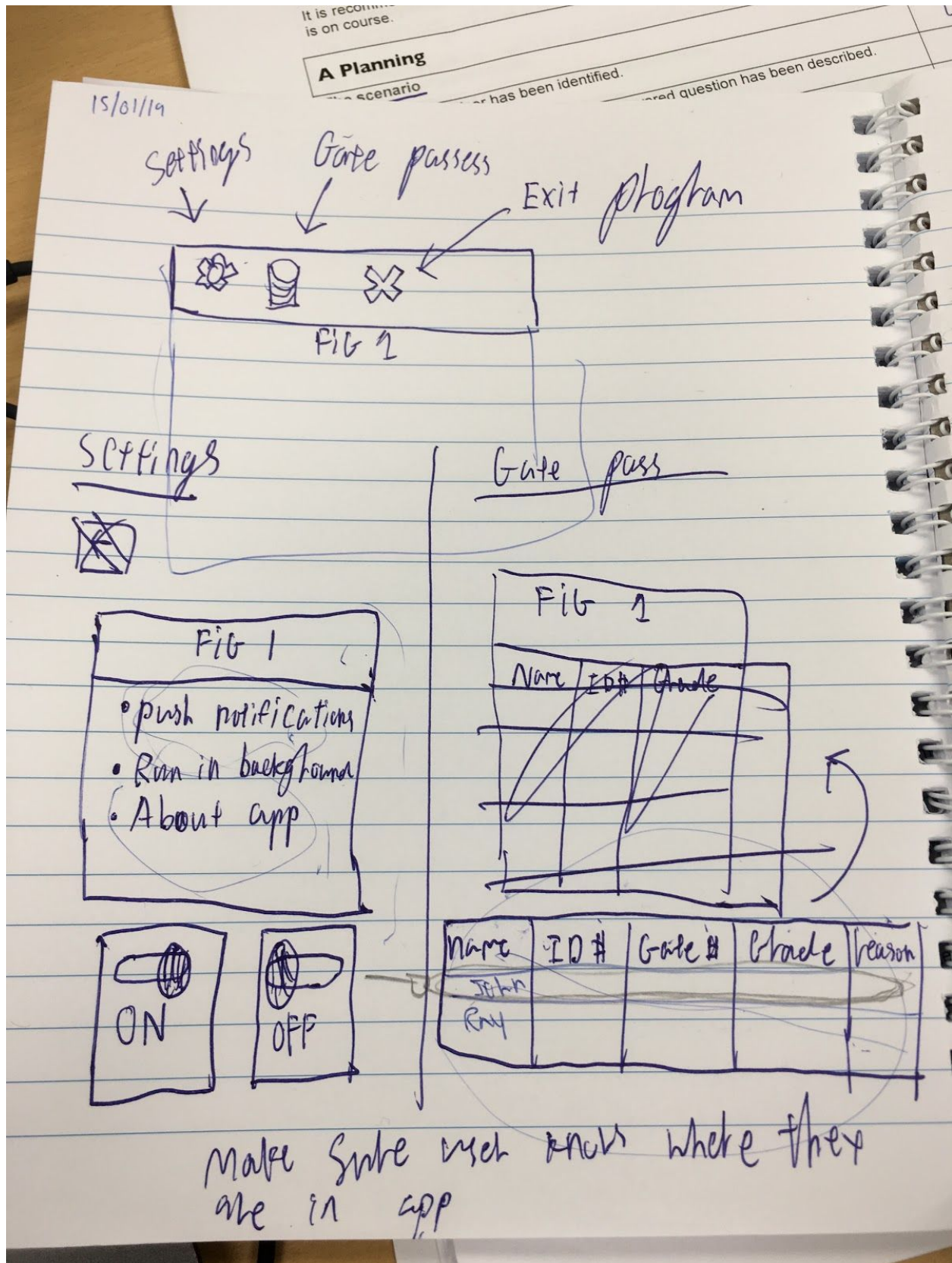
### Outputs:

Output	Data Type	Example
Name	String	Thanos
ID Number	int	14387
Grade	int	12
Comments	String	Test comment
Senior Pass Number	int	123

## UML Class Diagrams

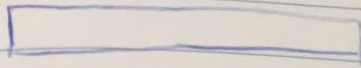


## Prototyping Process



15/01/19

Senior gate pass = blue color  
Regiment gate pass = orange



- combine Senior gate pass with Regiment gate pass

- Manual entry of information

Organized

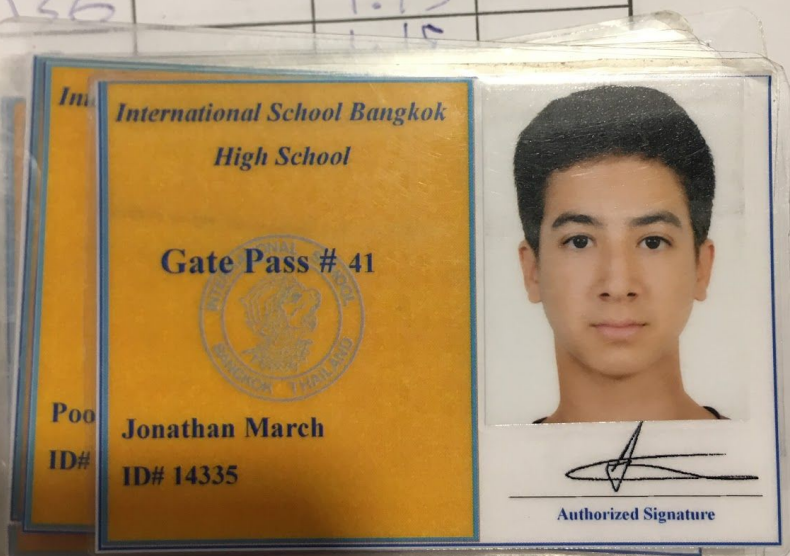
- Ask Gade about how many people leave per day on average



## SENIOR GATE PASS

NO.	NAME	PASS NO.	DATE	OUT	IN
1	Bea	22	28/03/19	10:20	11:30
2	Nico	135	"	"	11:08
3	Milos Z	75	"	"	
4	Meehan I	7	"	"	11:39
5	Sydney	45	"	"	
6	Fay W	114	"	11:25	
7	Anna S	34	27/07/17	12:57	
8	Alex C	138	"	1:00	
9	Lulu	35	20/07/17	1:00	
10	David	14	"	1:05	
11	Nikki Ling	91	"	1:05	
12	Erika	94	"	1:10	
13	Tina	136	"	1:15	
14	Carina	38	"	1:15	
15	Poon	26	"	1:40	
16	Saja	84	"	2:02	
17	Evan	106	"		
18	Niesam	43	"	2:10	
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

45	11	11	
114	"	11:28	
4	27/07/17	12:57	
138	"	1:00	
35	"	1:00	
14	"	1:05	
91	"	1:05	
94	"	1:10	
136	"	1:15	
		1:15	



4043052

13.47u

D1



INTERNATIONAL SCHOOL BANGKOK  
HIGH SCHOOL OFFICE  
GATE PASS

March 28, 2019  
DATE

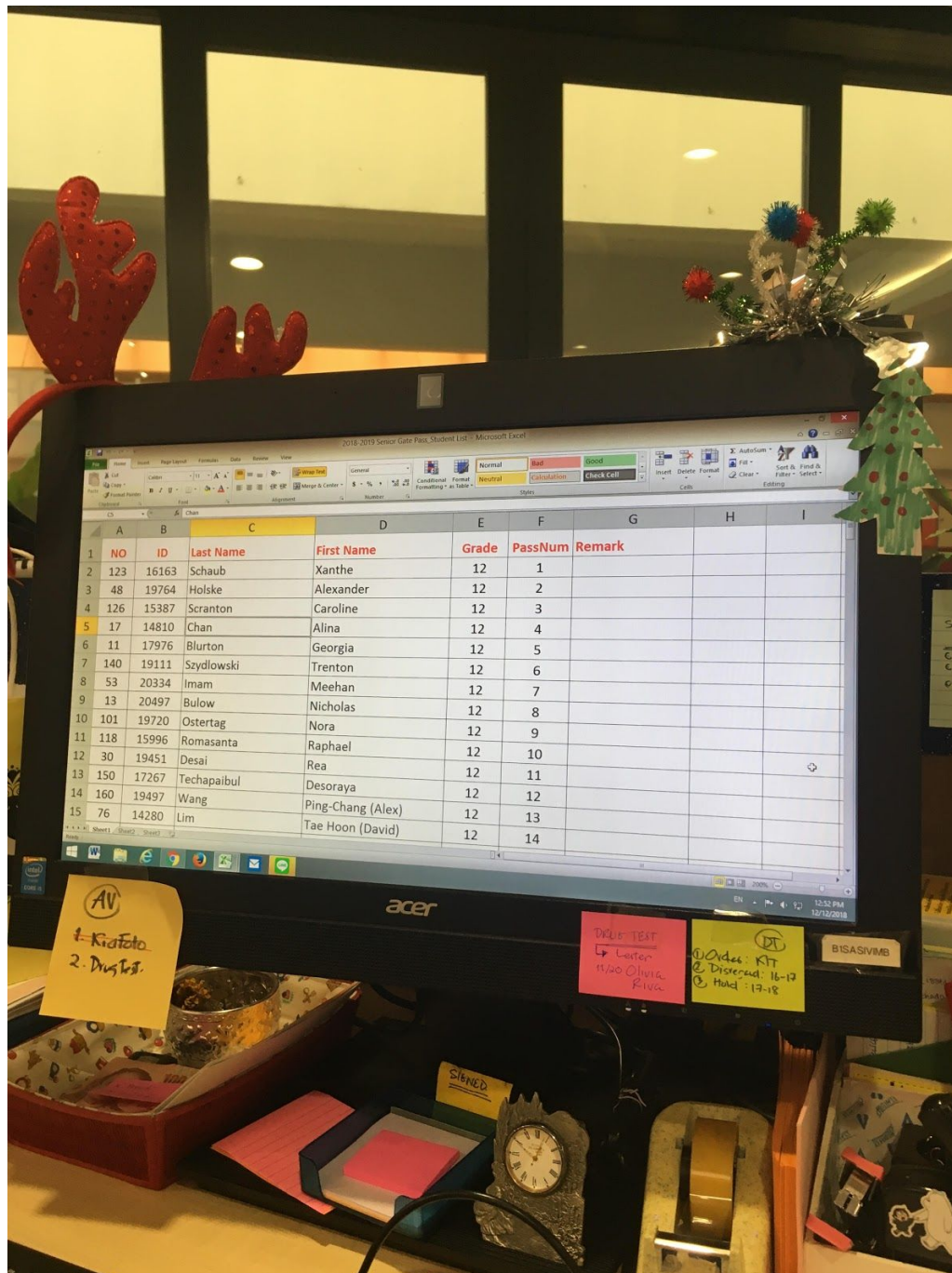
Name: Zach Heinicke

Time: 13.50

Reason: Private

Gael

Authorized Signature





Chin Chao HUANG &lt;14367@students.isb.ac.th&gt;

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**Question for IA**

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**Sasivimol (Gade) BOONYASNGUAN** <sasivimb@isb.ac.th>  
To: Chin Chao HUANG <14367@students.isb.ac.th>

21 January 2019 at 13:13

average per day = 10  
total populations = 500  
[Quoted text hidden]

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**Sasivimol (Gade) Boonyasnguan**  
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*Enriching communities through the intellectual, humanitarian and creative  
thoughts and actions of our learners*

Changes/Additions to Prototype

- Statistics on amount of students that leave during the day
- Be able to sort by name, ID, grade, and gate pass type
- Sort by alphabetical order
- Easily distinguish in between various types of gate passes

**INTERVIEW DOES NOT COUNT IN WORD COUNT****INTERVIEW STARTS AFTER THIS LINE**  
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-**Interview #2 (Prototype)**

**Chin Chao:** So this is the program that I sketched out here (proceeds to explain layout of proposed program). Would these features be enough for you? (features that were explained were about the presentation of the inputted data from the table, desktop notifications, allowing app to be running in the background while window is closed).

**Gade:** I see. If you ask me whether this is enough, I cannot say that it is because if you set something up for me (a computer program) to see it will be easier for me to verify whether it is enough or not. But if you ask about things like some of the features you mentioned, I cannot really understand whether it will be useful or not, or whether I will need more than that.

**Chin Chao:** Okay, so out of all the programs that you have used, which program do you feel is the most intuitive and organized program?

**Gade:** Well, I prefer the program that can help me to monitor or to help me monitor both senior and regular gate passes as well, for example, grade 9 to 11, during free period they can leave school as well, and during that time I don't have a file or something that can keep track of permission from parents for the students to leave the school. I typically get permission in the form of emails, notes, and phone calls. I also don't have a system to see who has left today or how many students have left (that I can view at any time) and I would like to be able to sort by name, ID, and grade.

**Chin Chao:** I would like to add that I can't do the "centralized system" that we discussed in our first interview, but I can do what you just asked me to do, which is to keep track of students who leave during the school day and provide statistics on it (and to be able to sort by name, ID, grade, and gate pass type) through the use of manual entries. I can also make it so that you can sort by alphabetical order, and I can also make it so that you can easily distinguish in between different types of gate passes by color (for example, senior gate passes will be red, and normal gate passes will be orange).

*[interview ends, irrelevant information afterwards]*

**INTERVIEW ENDS AFTER THIS LINE**

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## Final Prototype

New GatePass

Records

Name

Grade

☐ Senior Gate Pass

ID Number

Gate Pass #

Comments

Submit

[illegible]

## Chronological Development Plan

1. Create GUI prototype
  - a. Two panels/tabs
    - i. newPassPanel (input panel)
      1. Insert relevant text fields & text labels
    - ii. gatePassesPanel (output panel)
      1. Creation of table and refresh button
2. Create essential classes
  - a. Super class called GatePass that will handle common attributes such as
    - i. Name
    - ii. Grade level
    - iii. ID
    - iv. Comments
  - b. Subclass of GatePass for **normal gate passes** (NormalGatePass) that handles
    - i. Name
    - ii. Grade level
    - iii. ID
    - iv. Comments
  - c. Subclass of GatePass for **senior gate passes** (SeniorGatePass) that handles
    - i. Name
    - ii. Grade Level
    - iii. ID
    - iv. Comments
    - v. Senior gate pass number
    - vi. Boolean value (for checkbox to distinguish normal gate passes from senior gate passes)
3. Link 'essential classes' to GUI
  - a. 'Polymorphise' all of the 'essential classes' using ArrayList
4. Link newPassPanel to gatePassesPanel
  - a. Write code that will allow program to distinguish in between
    - i. Normal gate passes
    - ii. Senior gate passes
5. Clean up code (delete irrelevant code & comments)
6. Finalize code

### Record of Tasks Form

<b>Planned Action</b>	<b>Planned Outcome</b>	<b>Time Estimated</b>	<b>Target Completion Date</b>	<b>Criterion</b>
Find a client	Client found	About a week	7/12/18	A
Interview with Client	General idea of client's needs/wants	Less than 30 minutes	12/12/18	A
Problem statement	Problem statement done	Less than 20 mins	12/12/18	A
Defining the Problem	Completed definition of the Problem	Less than 20 mins	12/12/18	A
Transcript of Interview	Transcript done	Less than 1 hour	4/1/19	A
Prototype interview. This will include a prototype of the GUI	Prototype interview done, agreements are made regarding features and designs of the program	Less than 30 mins	15/1/19	A
Draft of UML diagram	Draft of UML diagram done	Less than 1 hour	17/1/19	B
Draft of Input/Output tables	Draft of I/O tables done	Less than 1 hour	21/1/19	B
Basic GUI done	Basic GUI done	Less than 1 hour	17/02/19	P
Make new classes (superclass and subclasses). Basically "gets and sets"	"Rough draft" Of superclass and subclasses	Less than 2 hours	17/02/19	P

Start development of GUI, superclass, subclasses	Some communication in between various panes (getting the ball rolling)	Less than 2 hours	18/02/19	P
Start polishing GUI and working on tying it all together, integrate client suggestions into GUI class	At least a couple of inputs should work properly and show up in the jTable, elements of the client's suggestions should be present in GUI	Less than 3 hours	20/03/19	P/B
Add a DateTime class	See if I can include a DateTime class and have it work properly/show up in the jTable	Less than 2 hours	20/03/19	P
Reorganize variables for easier "reading"	Reorganized variable names and properly formatted code so that it is more "readable"	Less than 1 hour	20/03/19	P
Integrate NormalGatePass class into GUI	NormalGatePass class should work in tandem with the GUI	Less than 2 hours	20/03/19	P
Integrate SeniorGatePass class into GUI; introduce polymorphism into MainGUI class to help streamline and process input	SeniorGatePass class wasn't properly integrated into the GUI (can't figure out why; code is skipping conditional clauses for some reason),	Less than 3 hours	21/03/19	P

	polymorphism was moderately successful			
Add some new elements into table to accommodate needs	Added some new elements into table to accommodate needs (date, time)	Less than 30 mins	21/03/19	P
Try to figure out why SeniorGatePass class isn't playing nice with GUI (certain elements related to senior gate passes not showing up); refine code as well	Changed class type for GatePass, modified superclass, reorganized and refined code in GUI class (related to getting information from the fields and outputting them in the table), new constructors in NormalGatePass and SeniorGatePass, got NormalGatePass comments to finally show up in the table	Less than 3 hours	25/03/19	P
Figure out the potential issues as to why elements of SeniorGatePass is not showing up in table	Did some troubleshooting, may identified problem but no fix was found	Less than 2 hours	25/03/19	P
Finish and polish criterion A	Finished and polished criterion A	Less than 1 hour	26/03/19	P

Evaluation Interview with Client	Show client what I have for Criterion E	Less than 10 mins	28/03/19	E
Last minute fix to solve senior gate passes issue	Had a 'eureka' moment, was able to make it so that senior gate pass numbers show up in jTable	Less than 20 mins	28/03/19	P

### Testing Plan

1. newPassPanel (input tab)
  - a. Name text field
    - i. Should be processed as a string
    - ii. Cannot be left blank
  - b. Grade level text field
    - i. Should be processed as only an int
    - ii. Cannot be left blank
  - c. ID number text field
    - i. Should be processed as only an int
    - ii. Cannot be left blank
  - d. Comments
    - i. Should be processed as only a string
    - ii. Cannot be left blank, unless isSeniorPassCheckBox = **true**
  - e. Senior gate pass number text field
    - i. Cannot be left blank, unless isSeniorPassCheckBox = **false**
  - f. Senior Gate Pass Checkbox (isSeniorPassCheckBox)
    - i. Is only processed as a boolean
    - ii. Can be left unticked if senior gate pass number text field is left blank
    - iii. Cannot be left unticked if senior gate pass number text field has input
2. gatePassesPanel (output panel)
  - a. Button to refresh for incoming input should function correctly
    - i. No inputting incorrect information to incorrect columns in table
    - ii. Should parse data types only in prespecified formats