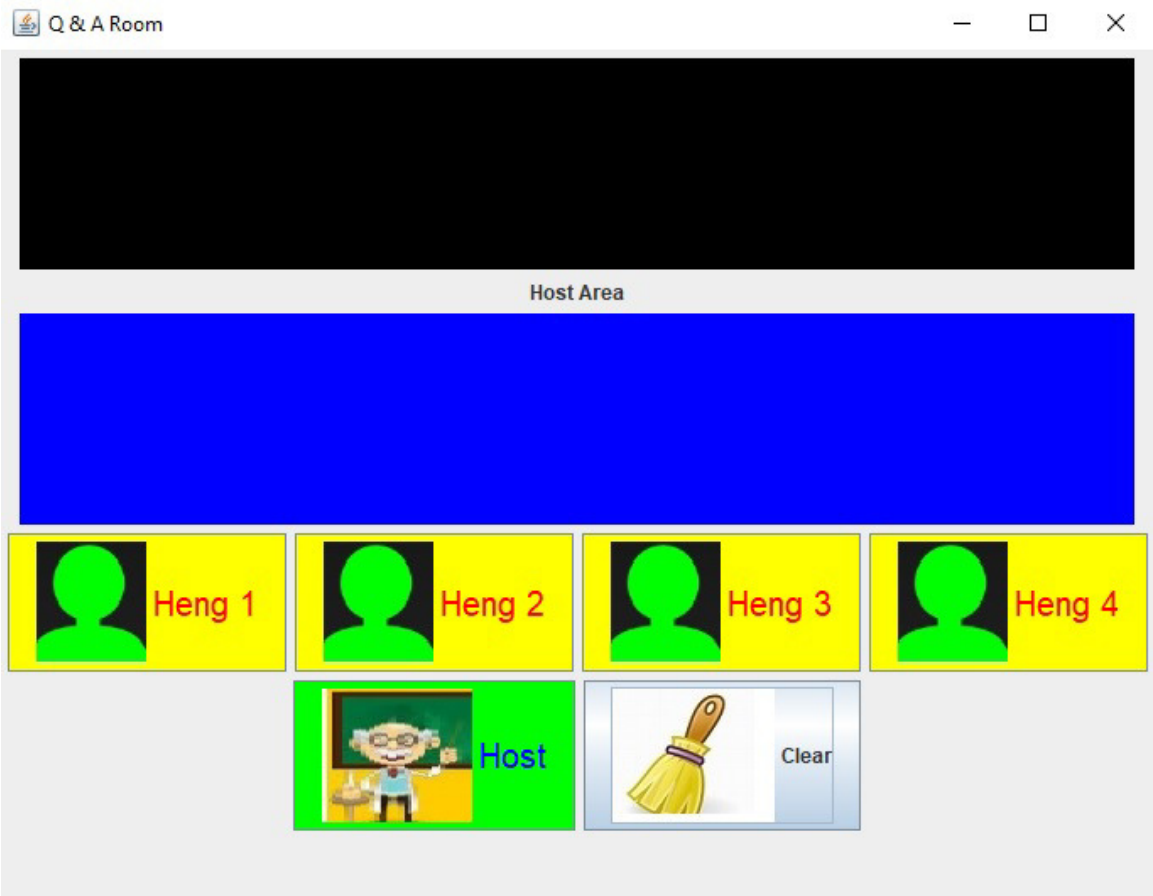
CSIT121
Object Oriented Design and Programming
Assignment 3

File name MUST BE
YourName _A3.java

Objectives:

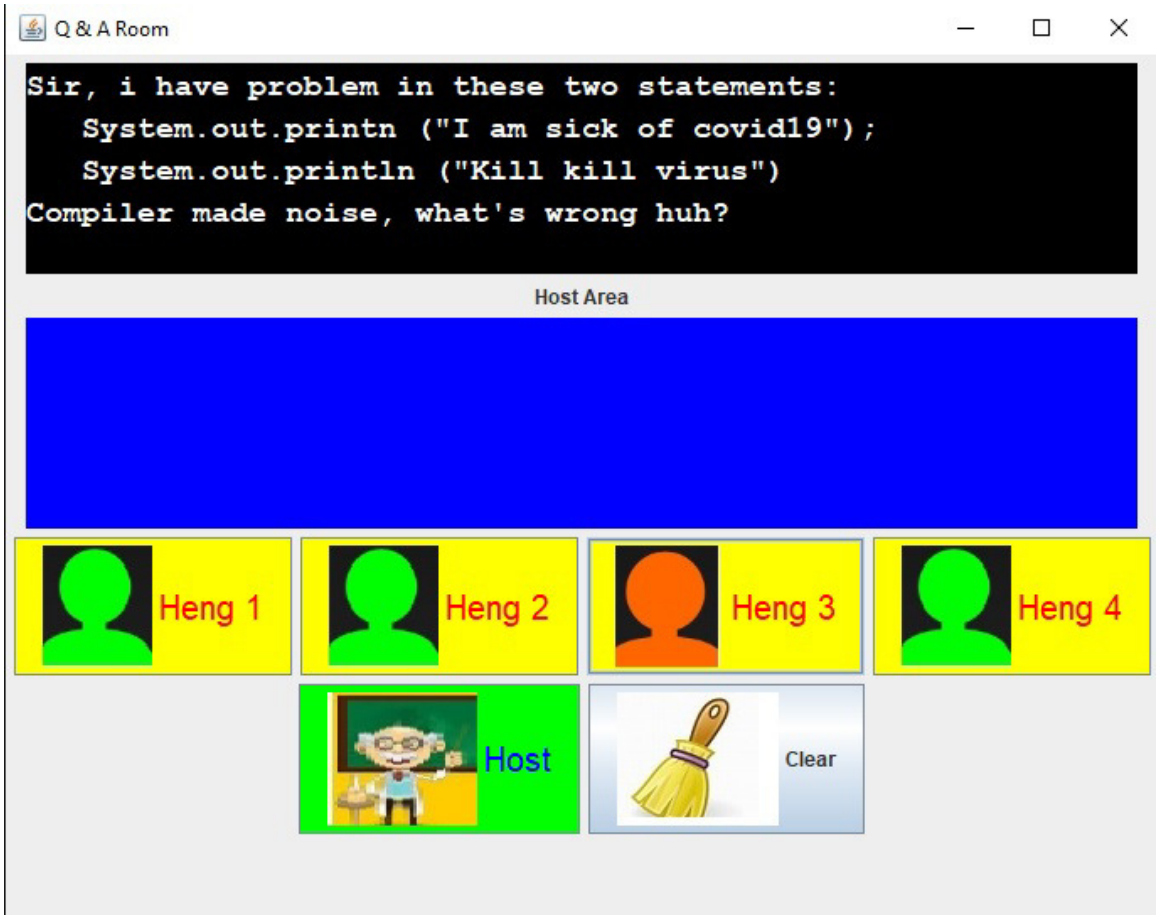
Practice java programming with GUI, Collections.

Task 1: (6 marks)



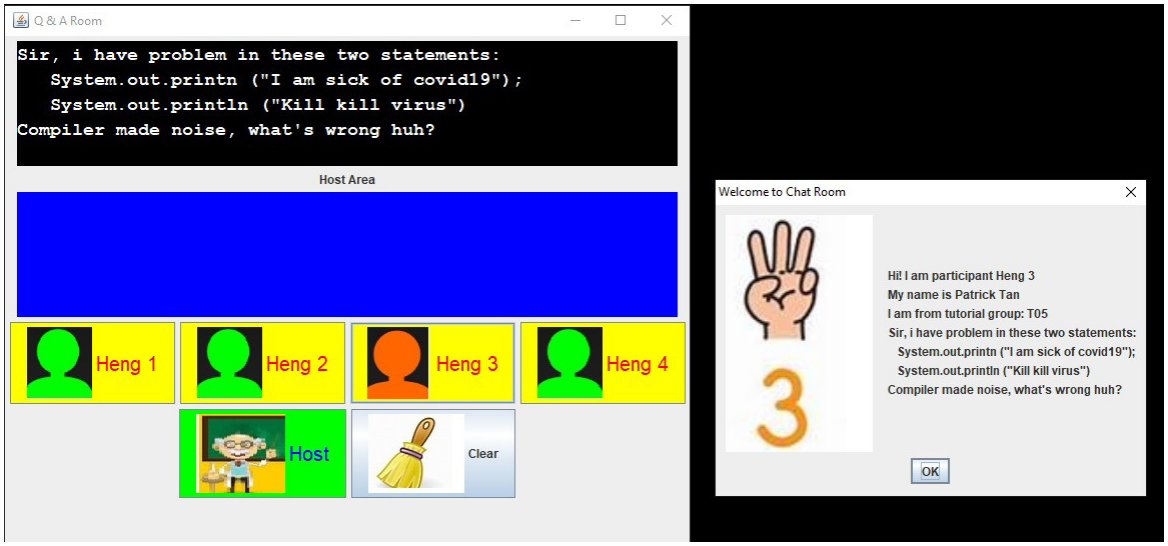
What is this? When I conducted the Java workshop recently my brain already had what I would have if I was asked to design a Q & A room. The room usually divided into two areas: the participant area and the host area.

Here is the 1st interaction, someone raises a question:

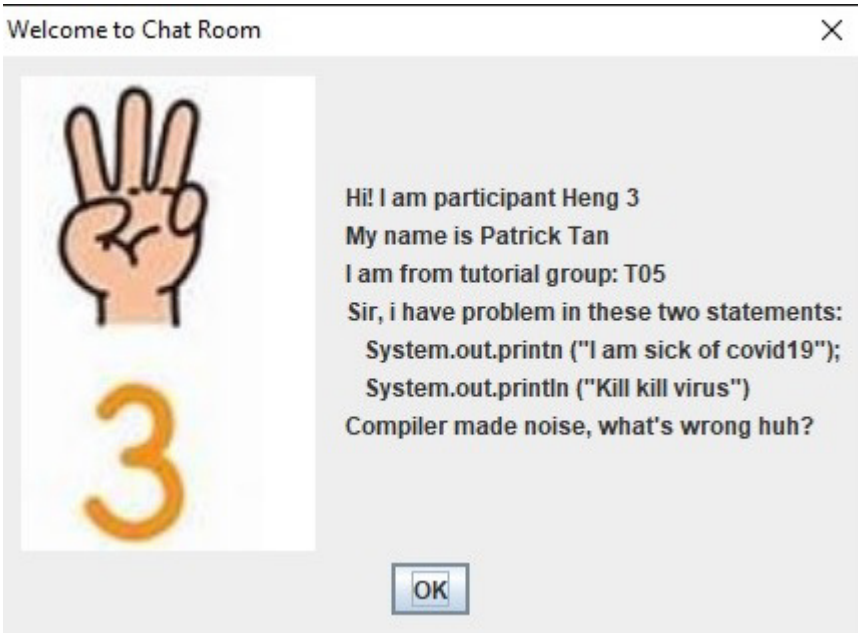


You may want to ask who raise the question. A lot of participants in a conference or a workshop; you can also say this is my CSIT121 online lesson and a student raises a question and I, the host, provide the answer.

We can assume that all participants have a button of their own to press. Now for example, Heng 3 presses the button (each button has a default image, and the button changes the color when the mouse moves over the button), the following panel is displayed:



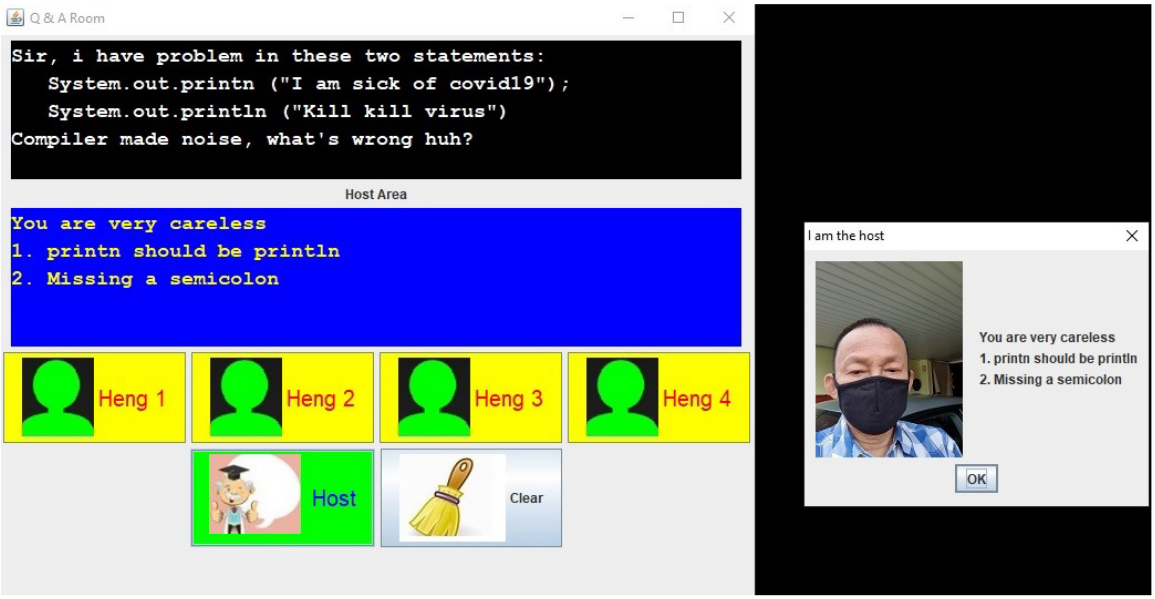
In the above image, you can see that another panel popping out. To let you have better view of the popped panel, here it is:



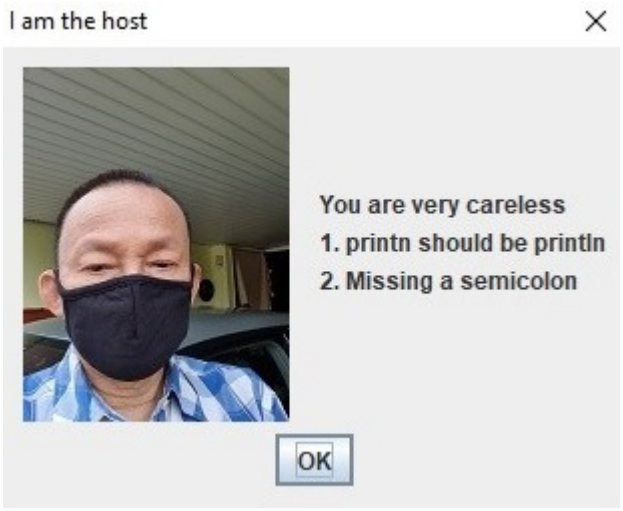
You can see that the student's photo, his or her actual name, and what tutorial class he or she attends is displayed in the popped panel; Heng 3 is just a label to the button; and each button has a default image. Actually the 1st three lines in above panel came from some "toString" info!!!

When the OK button is pressed in the above panel, we go back to the QA room waiting for the host to reply to the student's queries:

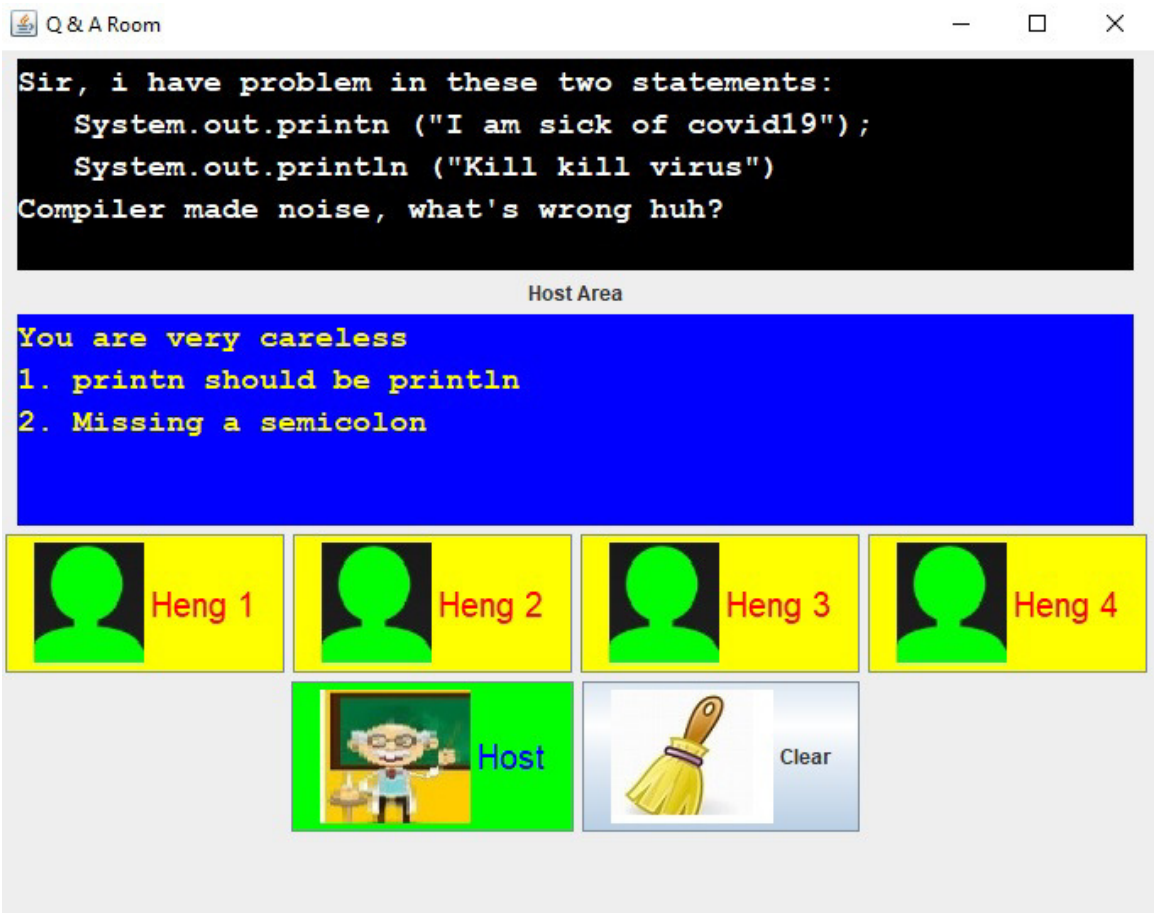
Now the host replies to student's query in the host's area. The mouse now moves to the "Host" button, and you see a change of new image too. You now press the host's button; another panel is popping out, displaying the host's reply:



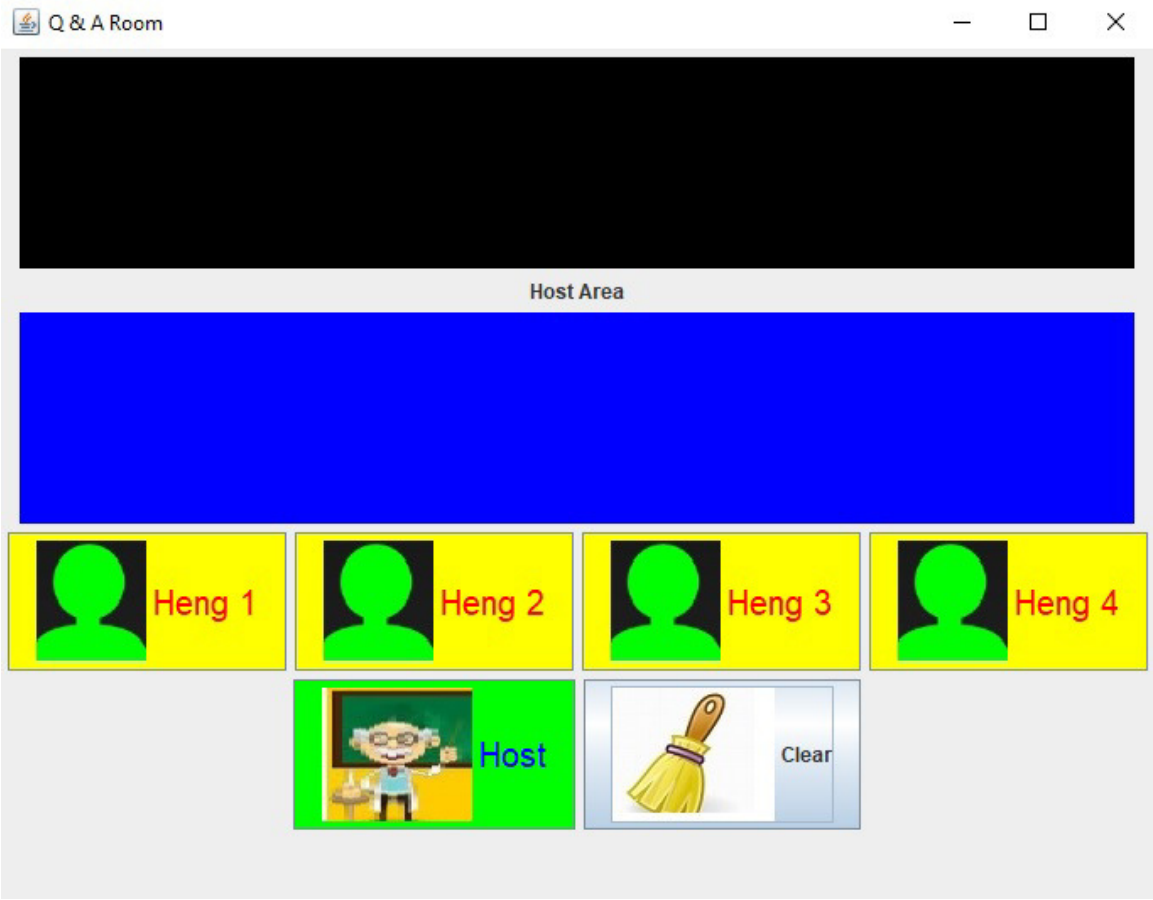
To let you see better of the host's replied panel:



When the OK button is pressed, you can now go back to the Q & A room to do some housing keeping:

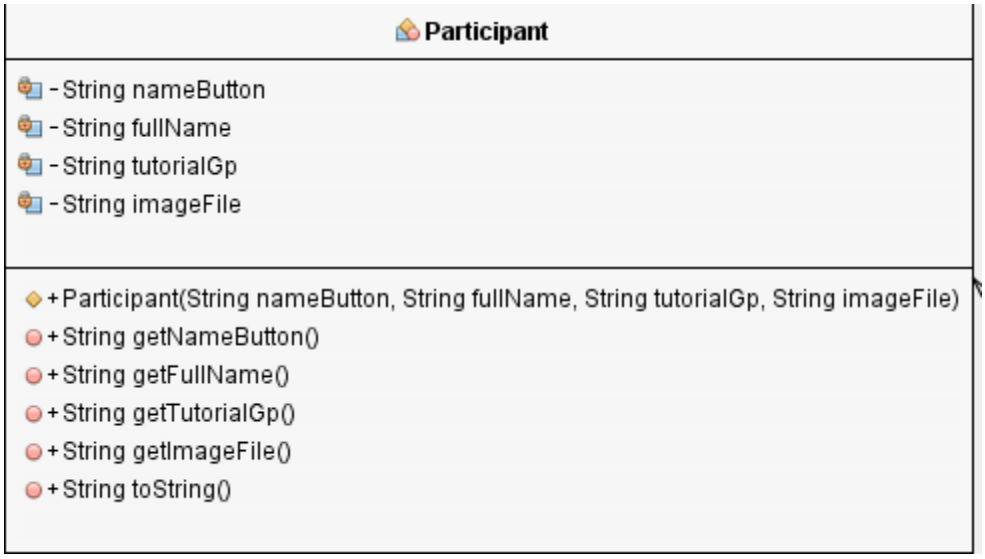


Finally, you press the clear button to erase the messages stored inside the two text areas, i.e. you go back to the 1st screen:



Note that this assignment is not just asking you design the above GUI app. **Try to have a few lambda expressions in your design in order to gain full mark of this assignment.** The number of participants is not limited to 4; must be at least 4.

You also need to design a class to describe what a participant is.



Usual info for a class, for example, instance variables, constructors, accessor methods, mutator methods; of course don't forget the toString method that you need to use in this design.

Construct a list of participant's objects, hard code or whatever, and use it in your design.

In the design, also explore the use of fonts, colors, background, and foreground. Explore as much as you can, make it an interesting GUI

IMPORTANT

Put all your classes in a file called **`YourName_A3.java`** and make sure that this file can be compiled and can be executed. Upload **ONLY** this file to Moodle. **ALL ZIP FILE SUBMITTED WILL BE REJECTED. You don't have to upload the image files**

No re-submission will be allowed after grading.

In the above file, remember to put down your name and the following declaration (some similar contents):

```
// Tell me if it is your own work, and whether you have passed your
// program to your friends etc etc etc
// and willing to accept whatever penalty given to you.
```

- **Wrong file name: -0.5 mark**
- **No declaration, no name etc: -0.5 mark**
- **Failing to demo: -1 marks**

- **Late penalty: – 0.1 per hour**