Introduction To Programming: Independent Investigative Effort 1

Due: See Canvas→Assignments for due dates, marks and submission link.
Obtaining help method 1: Create a post in the corresponding Canvas→Discussions→IIE forum, post a screenshot of your preliminary/faulty along with a brief explanation and your tutor will help in a general way. Debugging will still need to be done by the student as it is an important aspect of programming.
Obtaining help method 2: Weekly tutor chats (not to be confused with 'live lecture') of week 1 will give directions (not solutions) on how to approach this IIE01. Check recordings if you cannot attend.
Getting feedback: For specific questions asked, you will receive feedback via the forum within 1-2 working days by your group tutor. If you ask during a tutor chat, you would receive feedback immediately.
Late submissions: Accepted for up to 1 week with an automatic 10% penalty for each day late (unless special consideration received).
Solution: Solution, recommended approach, common mistakes to avoid, etc. for major tasks will be shown during the 7/Dec week 2 weekly live lecture.
Marks: IIEs are not tests. Marks are given based on effort and not on correctness. Marks turnaround time is approx. 10 working days after submissions close.
Access issues: For non-programming technical issues (relating to infrastructure, passwords, etc.) please call the RMIT IT Service and Support Centre for quick help on 03-9925 8888 and remember to ask for a reference number and pass it on to your instructor.
Extensions: For all new extensions, apply for special consideration online. Contacting your tutors, instructors first will lead to delays.

Please follow/complete all steps below in the given sequence:

1. Check your official @student.rmit.edu.au email account for announcements and other communication from the university. If getting in touch with your instructors, please only use this account (not Canvas inbox, messages, personal email, phone, Microsoft Teams, etc.)

2. Watch any unwatched recordings of the **Weekly Live Lecture** (and from week 2, complete all missed tutorials) **before going further**.

3. Is there something that you have not fully grasped from what has been covered so far? Please have your doubts clarified via one of the relevant forums under Canvas→Discussions. Leaving gaps has shown to be severely detrimental to learning.

4. This week's programming task requires you to submit a screenshot of your running program as a discussion forum post. You should aim to get the help of your tutors and make further revisions. **Your first post does not need to fully work for you to post and get help**.

Coding exercise steps (Hint: Need help? Your tutors will give you a brief demonstration during the 'tutor chats' this week. You can also ask your tutor via Canvas→Discussions→IIE01**):**

a. Get Eclipse IDE to work on your computer by installing the Oracle JDK then the Eclipse IDE for Java Developers.

b. Download the **Week01.zip** template Eclipse project **archive file** from:
https://jupiter.csit.rmit.edu.au/~e58140/GTerm/

… then import it in to Eclipse as an "**existing project in to workspace**".

c. Make a copy of the 'Week01' project and rename it to 'IIE01' from within Eclipse. Then rename the PleaseRenameMe.java under IIE01→src folder from within Eclipse to any name that you like as long as it follows the naming convention for classes as given in the Java API and is not "HelloWorld" (can you spot the rules and conventions around class names?). (Tip: Do not rename folders or files from outside of Eclipse as this could lead to issues.) Run the program and verify that the output is as shown during the lecture. **If you have an issue, ask your tutor** or post a screenshot of the issue under Canvas→Discussions→IIE01.

d. Change the message from "hello world", etc. to something of your own choosing. Now also experiment with the following statements to make your output more interesting:

```
gt.setXY(70,50);
gt.setFontSize(16);
gt.setFontColor(255,0,0); // Experiment with values between 0-255 (inclusive)
gt.setBackgroundColor(127,127,255); // Experiment with values between 0-255 (inclusive)
String enteredString=gt.getInputString("Enter something"); // Together with gt.print or gt.println
gt.addImageIcon(gt.getFilePath());
```

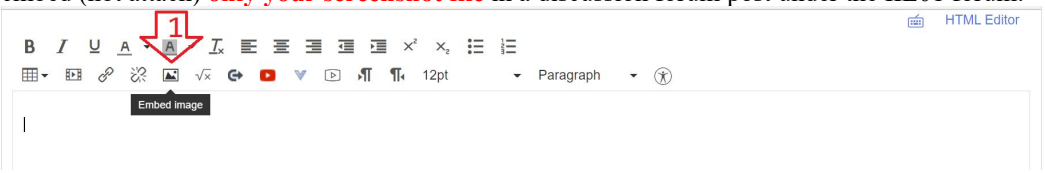
Remember to check the GTerm Help forum for additional tips and the GTerm Java Doc for more features that we will use later. If you need more help, remember to **ask your friendly tutor!**

e. The final version of the program that you submit must **must not have any red dots** (Java errors) as code with such errors cannot be tested/marked and will receive 0 for that submission. Submit your work with the red dot, ask for help from your tutor and update your code so that the final version does not have red dots. Yellow dots are warnings and these are different.

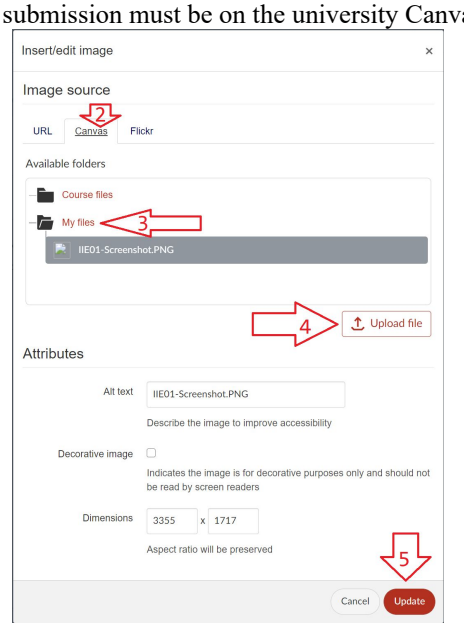
Continued...

f. Format your code via Eclipse→Source menu→Format. There is no need to select code to format.
g. Take one screenshot of your programming running against the code showing in the background. The screenshot has to be a PNG or a JPEG file.

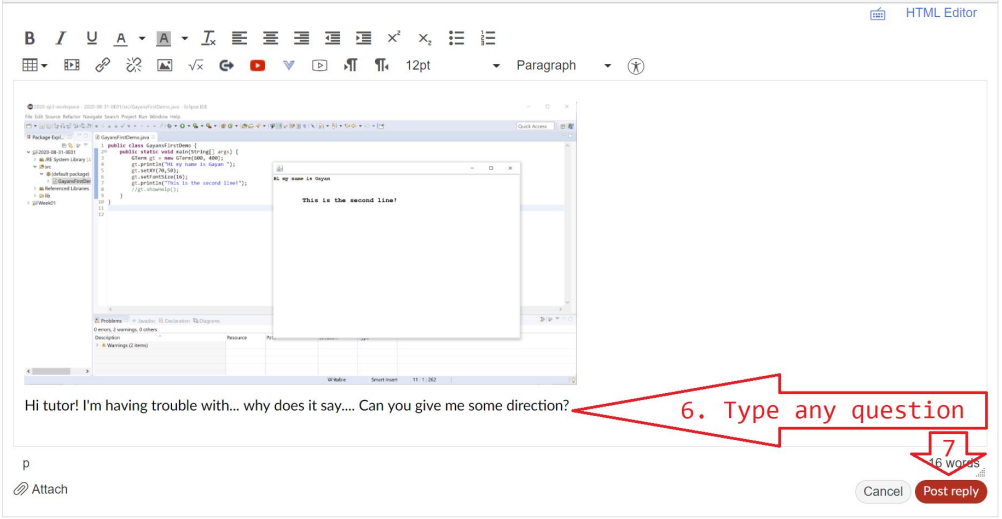
Submission Checklist for Step 4:
a. Ensure steps above have been followed in sequence. You must not leave any commented out code in your submissions.
b. Go to Canvas→Assignments→Independent Investigative Effort 1 (this will take you to the discussion forum by the same name).
c. To receive marks, embed (not attach) **only your screenshot file** in a discussion forum post under the IIE01 forum:



Next, upload the image to Canvas (your official submission must be on the university Canvas server and not on any external locations):

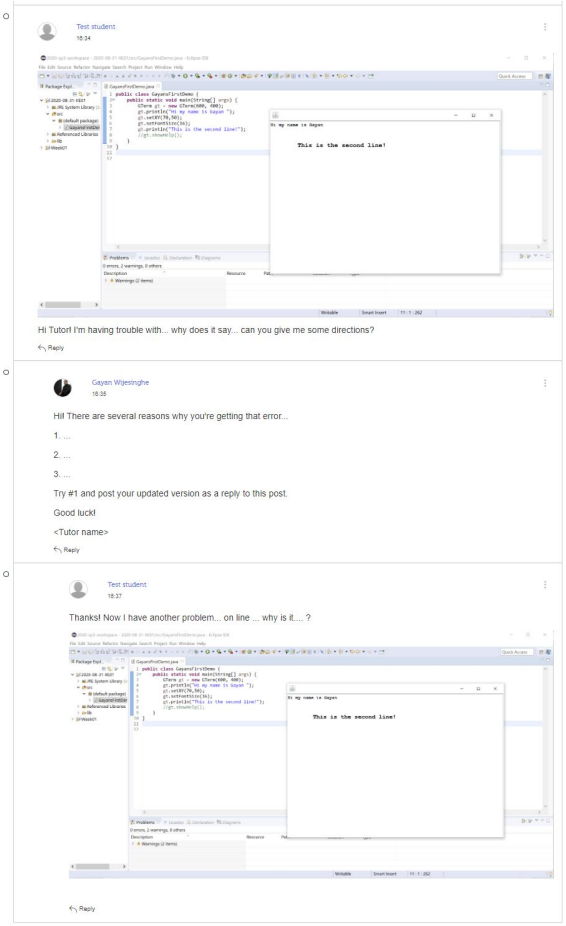


Next, type any questions you might have to receive an explanation from your friendly tutor:



Continued on next page...

d. If you make an update to your solution after posting (for example, after reading your tutor's suggestion), reply to your own post and repeat the process. For example…



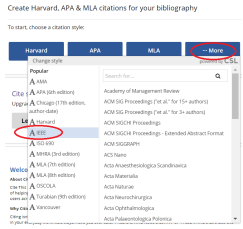
The following task will be covered during the 'Tutor Chat' run by your group tutors. See their chat schedule under Canvas→Collaborate Ultra.

5. Reply to your own post created in #4 above and add a discussion of the following terms in your own words: code **block** and data type. The emphasis is on explaining things in your own words rather than on the accuracy of your explanation.

If you have completed this IIE correctly, you would now have at least two posts under the IIE01 forum.

The following task will be covered during the 'Tutor Chat' run by your group tutors. See their chat schedule under Canvas→Collaborate Ultra.

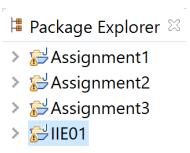
6. Referencing and academic integrity:
   a. When we need to give references in programming?
   b. How to use a reference generator tool such as citethisforme. (Tip: Choose more→IEEE)
   c. Edit your post from #5 and add a reference to a related article.



7. Progress submissions: The work that you will do in IIEs are relevant to concepts that you are required to demonstrate in the assignment. You should also think of completing IIEs as making preliminary progress towards meeting assignment requirements (note that major assignments will have their own set of requirements). When you are yet to start on an actual assignment, submit the .java file from your most recent IIE as a progress submission in to the actual assignment.

In this exercise, you must perform *progress* submissions for assignments 1, 2 and 3 by following the steps below. Note: You do not need to write any additional code for these submissions; just what you wrote for IIE01 is adequate.

a. As shown during the week 1 live lecture, copy your IIE01 Eclipse project and rename the project to Assignment1.



Now repeat this process to create separate projects for Assignments 2 and 3 as well. In total you should have 4 projects (1 for IIE01 and 3 for the assignments) aside from the "Week 1 template" project.

Tip for later: Assignment 1 might require you to name your .java file in a specific way for the actual/final submission.

b. Canvas has two submission systems. The one we use for major assignments (Assignments 1, 2 and 3) requires you to upload files (not a discussion forum post). This file upload submission system allows you to submit your work an unlimited number of times (only the last submission is official) and it can also be used as a way to backup your work. You must submit the three .java files that you've created above as follows (your file names may be different):

Workspace folder→Assignment1→src→**HelloWorld.java** must be submitted to Canvas→Assignments→Assignment **1**.
Workspace folder→Assignment2→src→**HelloWorld .java** must be submitted to Canvas→Assignments→Assignment **2**.
Workspace folder→Assignment3→src→**HelloWorld .java** must be submitted to Canvas→Assignments→Assignment **3**.

Common mistake: Students mistakenly submit the dummy assignments via Canvas→Assignments→Independent Investigative Effort 1, etc. Tip: The submission system might rename your file upon further submissions and do not worry about this.