University of Sussex – Masters

Object Oriented Programming 823G5

Autumn term 2018: Assignment 1

This assignment is worth 20% of the coursework total, and 10% of the total marks for this module.

Set:	Tuesday 16 October 2018.
Due:	Term 1 Week 9 - Thursday 22 November 2018 by 4PM.
Format:	Electronic submission only via Canvas

Assignment Project Exam Help
https://tutorcs.com
WeChat: cstutorcs

General instructions

1. Answer all parts of the brief.
2. Do not copy the work of another student. Plagiarism is a very serious matter. Discussion between students is to be encouraged – copying is an academic disciplinary matter.
3. Hand your submission in on time. There are penalties for late submission.
4. If I cannot read your submission, I cannot mark it. It is your responsibility to ensure that the presentation of your submission is appropriate for a University student.
5. If you do not understand the brief, you can get help at the workshop sessions.
6. Ensure your candidate number is on your final submission. It is surprising how many students forget this basic information.

Assignment 1: “Moving through space” adventure game specification

Design and implement your own adventure game scenario. The game can be anything that has as its basic structure an idea of a player moving through different locations.

Some possible examples:

- You are a pirate searching for gold in the convoluted network of caves on Treasure Island.
- You are a plumber moving though a labyrinth of underground water pipes and chambers.
- You are a knight, searching through a series of rooms in a medieval castle, fighting monsters and saving your Queen.

Using the “World-of-Zuul” game as an example (Chapter 6 in Barnes and Kolling), make sure that you are following good design principles, such as low coupling with the use of encapsulation, high cohesion, no code duplication, responsibility-driven design. In order to gain more marks (see sample Marking table below) you can increase the complexity of the game by adding, for example, items for the player to pick up or to put down in each room, up-down movement, “instant transportation” to some chosen location etc. However, please notice that the main purpose of this assignment is to create a very clean, responsibility-driven design, following good software engineering practices such as low coupling and high cohesion, and clear documentation for your code (see documentation guidance in Section 10 in Chapter 5 of your course book).

Assignment Project Exam Help
https://tutorcs.com
WeChat: cstutorcs

Marking

This assignment is worth 20% of the total coursework element of this module and the coursework element is worth 50% of the total module marks. This makes this assignment worth 10% of the total marks for this module. The marking scheme for this assignment will allocate marks out of 100 according to the following breakdown:

Aspect	**Marks available**
Design and coding style:	35
Error prevention and recovery	20
Complexity of the game	20
Program report and Javadoc documentation	15
Commenting within the code	10
Total	**100**

Class documentation should include:

- A description of the class purpose and main characteristics.
- Version number (in the format @version *version code*).
- **Author's ID** (in the format @author *author's Student code.*
- Documentation for each constructor and method:
  - A description of the purpose and function of the method.
  - A description of each parameter (in the format @param *description*).
  - A description of the value returned (in the format @return *description*).

Submission

Deadline for Assignment 1 is 4:00PM Thursday 22 November 2018.
Hand in your assignment using the Assignments tab on Canvas.

Your submission should include a short report that includes:

1. The problem statement. This should be a brief description of the problem the program addresses. Given that your program will implement something other than a World of Zuul you should make clear here what your application does. Also mention the total number of locations etc.

2. BlueJ class diagram for your project. (If you did not work in BlueJ, make sure that you submit all of the necessary files for running your program, clear instruction on how to run your program outside BlueJ and a UML diagram of your classes. Failure to provide this will result in zero mark).

3. A brief description of how the starting program was modified. You do not have to describe the starting program or any of its classes but you have to say how these classes changed (those that did change). Also describe any new classes. The description of new classes should be brief, complement the class (UML) diagram and therefore should be at a high level.

4. Screen shots of your program for the main functions implemented.

And:

5. The complete source code in an electronic form. If you are using BlueJ, just zip up the entire BlueJ project folder and all your code will be safely insider. If you are using an alternative IDE, check that you have included all code files in your submission.

Your report should consist of no more than 600 words. Please use any reasonable standard document format such as .doc and .docx or pdf. Please do not submit Mac Pages files as these can only be read on a limited number of devices.

Assignment Project Exam Help
https://tutorcs.com
WeChat: cstutorcs

Put all of your files together in one ZIP file and upload the zip file using the electronic submission point on Study Direct. Please remember to check that your ZIP files unpack correctly before submitting them (I sometimes get empty files because students have not checked – empty files do not grade well!).

Dr Kingsley Sage
Khs20@sussex.ac.uk
October 2018

Assignment Project Exam Help

https://tutorcs.com

WeChat: cstutorcs