

Coverpage

Technical report OOSD

Tyler Shanu-Wilson 17003523

Jimmy Malandris 170056667


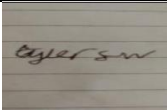
Plagiarism Statement

I confirm that this assignment is my own work, no part of it has copied from any other person's work (published or unpublished), and any text that has been paraphrased has been cited in the body of the document with the full details of the original work included in the reference list.

I also confirm that I have read the guidance provided at:

<http://www.hope.ac.uk/gateway/supportandwellbeing/studentadministration/understandingyourdegree/>

I also confirm that I understand the consequences of academic misconduct and that it may result in termination of my studies at Liverpool Hope University.

Name	Sign	Date
Dimitris Malandris		21/03/19
Tyler Shanu-Wilson		21/03/19

Note: Add additional lines as necessary. If you do not have an electronic signature you can create one by taking a picture of your signature

Contents

Executive Summary	1
Requirements.....	1
Response.....	1
Benefits	1
Requirements.....	Error! Bookmark not defined.
Functional Requirements.....	Error! Bookmark not defined.
Non-functional Requirements.....	Error! Bookmark not defined.
Installation	3
User Guide	4
Programme of Study.....	Error! Bookmark not defined.
Courses	4
Students	Error! Bookmark not defined.
Assessment Marks.....	Error! Bookmark not defined.
Security Considerations	4
Contingency Considerations	5
Reports	5

Executive Summary

Requirements

The solution proposed is required to will store details of degree programs, the courses contained therein, and the students registered onto the courses. The programme needs to be as functional as possible. The user should be able to input details of courses, students and assessments and reports of all these details should be displayed upon request. Grades should be assigned based on assessment results and displayed. Steps should be in place to minimise errors, especially when an input is required from the user.

A non functional requirement is staff will need to be trained to use the application, however the solution is very user friendly so only minimal training is required. Another requirement is the application will need to be installed and appropriate hardware such as a computer will be needed. Visual studio (or other software that can read c++) will also be needed to be installed in order to run the programme.

Response

In response to this an application has been created in visual studio using the programming language c++. The programme uses a simple user interface where menus are displayed in text format. The user inputs numbers to navigate to different functions. From the main menu, the user can navigate to the student menu, which allows the user to add and see student details. They can also access the course menu where they can add, show and amend course details. There is also a menu to enrol students and view the names and ids of the students.

Benefits

The benefits of the solution are all student and course details can be added easily. All the details are stored electronically meaning they are more easily accessible than paper based records. The user can easily amend details if they have changed or been inputted wrong. All of the details can be displayed in an easy to read format. All functions are quickly accessible from the menu system to save time.

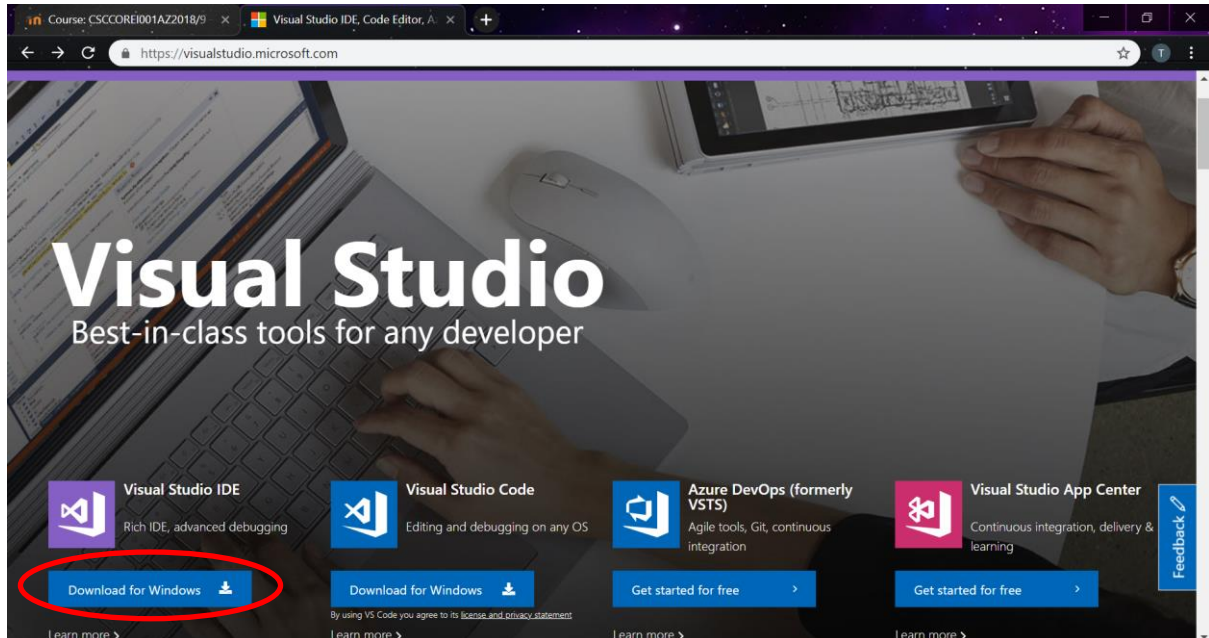
Contributions

contribution	Team member
User interface and menu system	jimmy
Student options	tyler
Course options	jimmy
Student enrolment	Jimmy and tyler
Testing and debugging	Jimmy and tyler

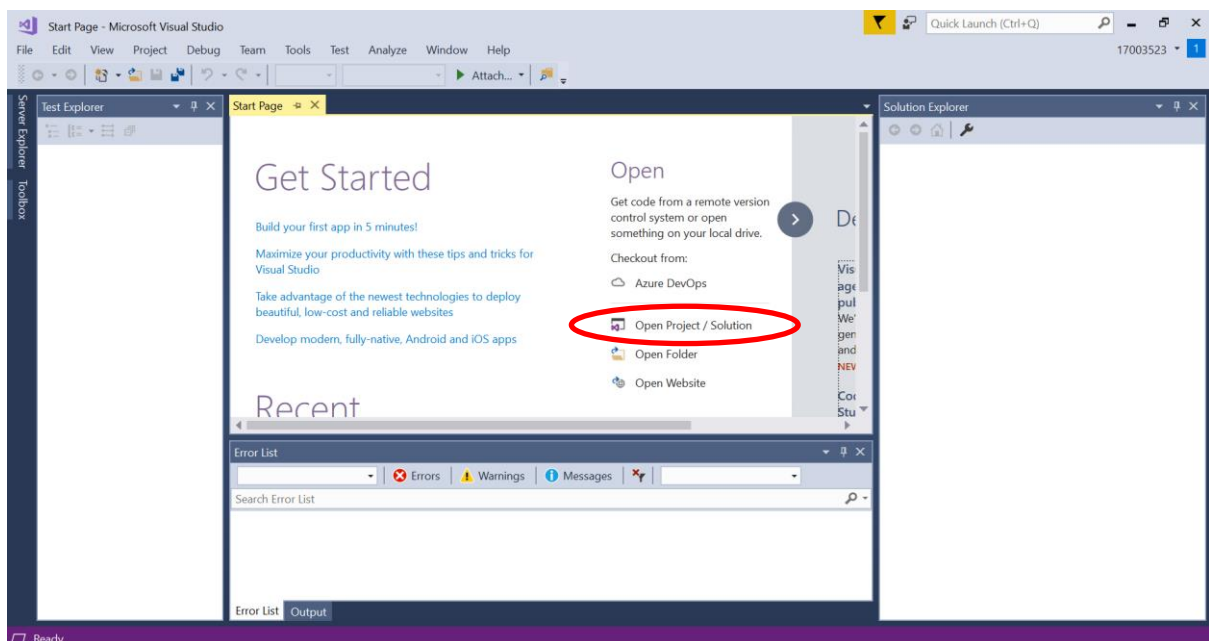
Installation

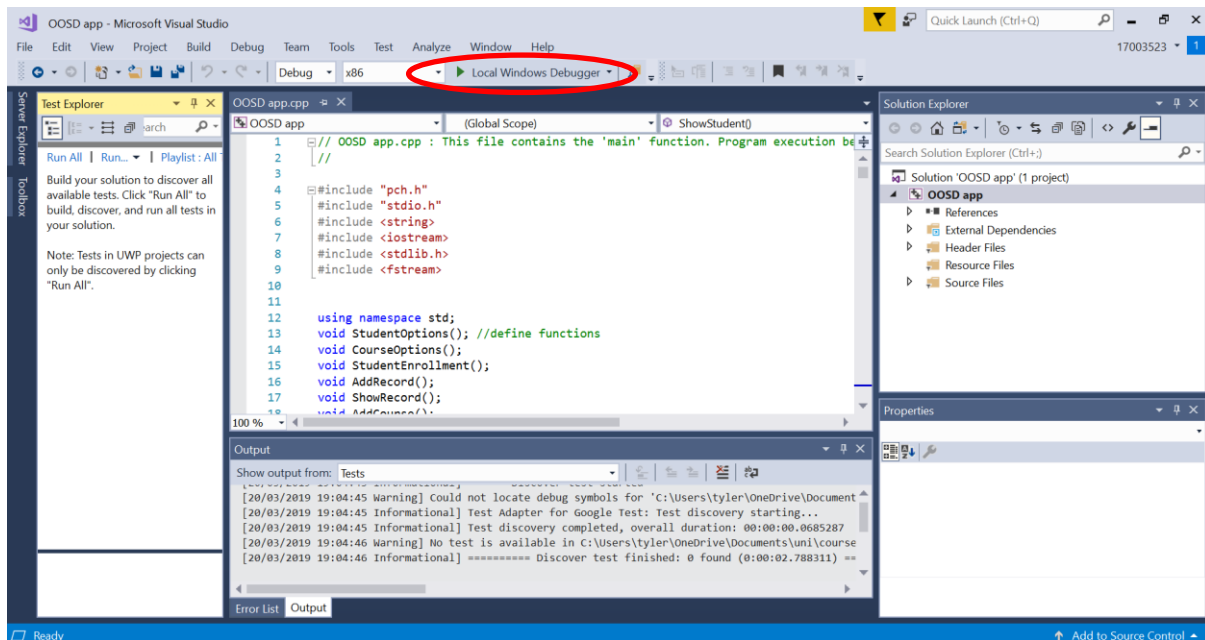
How to install the application (i.e. details of complication and running).

To install the application you will need a computer or laptop with capabilities of running visual studio. Visual studio can be found at <https://visualstudio.microsoft.com/>.



You will then need to download the folder for the application which includes all the items needed to run the programme. Once visual studio is installed, open it and select open project/solution and select the .cpp file inside the folder downloaded earlier and the solution will load up. Then select local windows debugger to run the application.





User Guide

Student options

Student options is accessed by typing 1 on the main menu. From here, if 1 is typed, you can add a student record. The interface will ask for certain details. When asked for a detail type it in and press enter. If the wrong format is used to type details, an appropriate message will appear saying why it is the wrong format and ask the user to type again.

Course options

Course options can be accessed by typing 2 on the main menu. You can then press 1 to add a record. Similar to adding student records, the user types the details requested and will be notified if the wrong format is used and asked to re-enter.

Enrolling students on course

If 3 is typed on the main menu, the user is taken to enrol students. Then you can type 2 and student names and id numbers will be read from a text file.

Security Considerations

A security consideration is students should be able to add their own details but should not be able to view details about another student for privacy reasons. All records should be kept secure to prevent another party gaining access to students details.

Trusted staff should have access to view and amend student details but not every user should have this privilege. To do this we propose a login system where the user is asked for a password. If the password for trusted staff is entered, they will have access to these extra privileges. The student password should allow for students to add and amend their own details only.

Contingency Considerations

We propose that all data should be backed up to the university's local server, so the university has all the rights to the data stored and doesn't have to pay for it to be backed up elsewhere. By doing this, if the data is lost, through physical hardware damage or by a hardware or software malfunction, backups of the data will be available, so it is not lost completely.

We propose that the data be automatically backed up, so staff don't have to waste time backing it up. This should be done at a frequency of twice a month so it doesn't take up too many resources whilst still making sure it is being backed up frequently meaning minimal data will be lost.

Reports

By typing 1 on the main menu, you go to student options. From here type 2 and a report of student records will be shown. It will show:

- Programme of study
- Start date
- End date
- Course level
- Course name
- Assessment names
- Assessment deadline dates
- The weighting of coursework, exams and portfolios

By typing 2 on the main menu, you will be taken to course options and a report of course details will be shown by typing 2 again. This report shows:

- Course codes
- Course names
- Course levels
- Number of assessments

By typing 3 on the main menu, you are taken to enrol students. From here type 2 and it will show student names and id numbers.