

PMA ASSESSMENT CHECK/APPROVAL FORM

Assignment Guidance and Front Sheet

This front sheet for assignments is designed to contain the brief, the submission instructions, and the actual student submission for any WMG assignment. As a result the sheet is completed by several people over time, and is therefore split up into sections explaining who completes what information and when. Yellow highlighted text indicates examples or further explanation of what is requested, and the highlight and instructions should be removed as you populate 'your' section.

This sheet is only to be used for components of assessment worth more than 3 CATS (e.g. for a 15 credit module, weighted more than 20%; or for a 10 credit module, weighted more than 30%).

To be **completed** by the **student(s)** prior to final submission:

Your actual submission should be written at the end of this cover sheet file, or attached with the cover sheet at the front if drafted in a separate file, program or application.

Student ID or IDs for group work

e.g. 1234567

To be **completed** (highlighted parts only) by the **programme administration** after approval and prior to issuing of the assessment; to be **consulted** by the **student(s)** so that you know how and when to submit:

Date set	Friday 03 rd November 2023
Submission date (excluding extensions)	Wednesday 17 th January 2024
Submission guidance	To be submitted electronically via Tabula
Late submission policy	If work is submitted late, penalties will be applied at the rate of 5 marks per University working day after the due date, up to a maximum of 10 working days late. After this period the mark for the work will be reduced to 0 (which is the maximum penalty). "Late" means after the submission deadline time as well as the date – work submitted after the given time even on the same day is counted as 1 day late.
Resubmission policy	If you fail this assignment or module, please be aware that the University allows students to remedy such failure (within certain limits). Decisions to authorise such resubmissions are made by Exam Boards. Normally these will be issued at specific times of the year, depending on your programme of study. More information can be found from your programme office if you are concerned.

To be **completed** by the **module owner/tutor** prior to approval and issuing of the assessment; to be **consulted** by the **student(s)** so that you understand the assignment brief, its context within the module, and any specific criteria and advice from the tutor:

Module title & code	Cyber Context of Software Engineering (WM240)
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Module owner	HS Lallie
Module tutor	Debashish Das
Assessment type	Coursework Coursework 1
Weighting of mark	50%

Word count	2000 words You will not be penalised for producing under length work, provided quality is not sacrificed to brevity. Learning to write to a limit is one of the skills the degree is designed to encourage you to cultivate.		
Does the word count allow +10%? Select ONE	Does the word count include tables? Select ONE	Does the word count include references? Select ONE	Does the word count include appendices? Select ONE
No	Yes	No	No
If appendices are included, will they be marked: No			

Submission format	PDF
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Module learning outcomes (numbered)	<ul style="list-style-type: none"> • Apply cyber security good practice to various phases of the software engineering lifecycle • Critically reflect on the development of a software project • Demonstrate the understanding and application of relevant software development frameworks to a given software development scenario
Learning outcomes assessed in this assessment (numbered)	As above
Marking guidelines	Generally indicated within specification
Academic guidance resources	<p>You will have an opportunity to ask questions and get support on the assessment after it has been handed to you. You will be supported in this assessment through:</p> <ol style="list-style-type: none"> 1. The Teams Channel. 2. Specialist assessment support session. 3. One to one sessions (please arrange meetings with me). <p>Notes to students:</p> <p>If support is provided on a Teams Channel or a Moodle forum, please ensure you check previous questions posted on the channel. The Teams/Moodle</p>

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	<p>channel will typically be closed one week before the submission date and no new questions will be addressed, please organise your time accordingly. Please be patient with module tutors. Please turn on your Teams Channel/Moodle notifications. If a tutor has not responded to a query within 5 working days, please email the module tutor.</p>
Special instructions	<p>Do not include the PMA specification in the submission.</p> <p>Spelling/grammar. Ensure that you spell check the submission, use a grammar checker and ensure that you proofread your work prior to submission. Spell/grammar checkers must be set to UK English, do not use 'Americanised' spellings.</p> <p>References. References are to be included at the end of the report using the Harvard referencing system. You should not include a bibliography. Each reference must be connected to a citation within the main body of the report.</p> <p>Do not attempt to hide text within JPEGs, this will be construed as an attempt to mislead the assessor.</p> <p>Coherence. A poorly worded report will hide excellent content. The narrative should be easy to read, and arguments should be presented coherently and convincingly.</p> <p>Presentation. At this stage in your studies, there is no excuse for poor presentation. You will not receive marks for presentation; however, your submission will be penalised for poor presentation.</p> <p>Formatting. All figures and tables must be properly labelled and captioned. All pages must be numbered. Formatting must be consistently applied throughout the submission. Submissions that stray from this guidance may be penalised.</p>

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WM240-24 The Cyber Context of Software Engineering

Background

Pacific Tours is a tour operator. The company wants to implement a new reservation system to improve the reservation process. The system will enable customers to reserve holiday tour packages and hotel rooms for its customers.

Registration

New customers need to register with the system. New customers will choose a username and password. The system captures and stores details, such as the customer name, passport number, and the contact number.

On successful registration, each customer receives a unique customer number.

Bookings

Customers are able to reserve holiday tour packages and/or hotel rooms.

Hotels

The available hotels and guesthouses can be searched from a database of available hotels. Customers can search for:

- A list of all hotels represented by the tour operator.
- A list of hotels available on specific dates or date ranges.

Searches should result in all the information being made available to a customer including costs, name of hotel etc.

Having searched for hotels, and presuming a hotel is available on the required date, a customer can make a reservation for the hotel. Reservations are only confirmed after a 20% deposit is made.

The list of Hotel options is provided in Appendix 2

Tours

A tour does not include a hotel, customers selecting tours are able to book a hotel through a third party provider.

Customers can search for:

- A list of all tours represented by the tour operator.
- A list of tours available on specific dates or date ranges.

Searches should result in all the information being made available to a customer including costs, name of tour etc.

Having searched for tours, and presuming a tour is available on the required date, a customer can make a reservation for the tour. Reservations are only confirmed after a 20% deposit is made.

The list of available tours is provided in Appendix 1.

Holiday package

A holiday package is the selection of a tour and a hotel. This automatically attracts a discount. The discounts are described in Appendix 3.

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Booking Confirmation and Payment

The remaining amount needs to be paid 28 days before the commencement of the booking, otherwise the deposit is forfeited.

Modification

Bookings can be modified up to 14 days before the booking subject to a 5% surcharge and assuming changes can be accommodated.

Cancellation

Cancellations may be made 5 days prior to the booking. If the payment made is late, an administrative charge of £50 is applicable. A receipt for payments made should be generated by the system.

Further System requirements

The database must use SQL for storing the information.

Managers should be able to pull a report of all bookings, availability etc.

Security elements of this system should be given due consideration and implemented accordingly.

Your Task

You must create a web-based system for the scenario described above.

General Requirements

- The program should compile in Visual Studio without errors
- You must use a suitable web Interface
- Document your code by using comments where necessary
- Use indentation
- Use meaningful names for identifiers
- Input data validation should be implemented in the system to prevent errors.
- You must use C# features and programming concepts, you must not use VB.NET or F#.NET features

Deliverables

Part 1 Coding and Demonstration (35 marks)

Build the web-based system (30 marks).

Present your solution in class in a viva on the 19th January, 2024. This is two days after you have submitted your report. The viva is worth 5 marks.

Failing to attend the in-class viva results in a 15 mark penalty.

Part 2 Report (15 marks)

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You must produce a software design and delivery report that documents the approach you have taken to design and implement your web-based system. You will need to:

- a. Explain how the requirements were met using the agile software development methodology.
- b. Explain how the prototype works, referring to snippets of code where necessary.
- c. Demonstrate how the prototype meets the business requirements.
- d. Provide specific details about how the system meets some of the cyber security guidelines with examples. Some cyber security guidelines may be taught in class, however, you will be expected to learn these through your own research. Any research or guidelines you incorporate should be cited in the discussion with a reference provided in a references section.

Sharing the Prototype

The prototype (Code and Input/Output Screenshot) must be included in Appendix 1 of your report.

In addition, create a Github repository and upload the code to the repository. Share this with the module tutor and explicitly state the link in your report. Failure to do any of the following will incur a five mark penalty:

- a. Include the code in the appendix
- b. Share the Github link in the report
- c. Share the Github repository with the tutor

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Appendix 1 – Tours

Remember that a tour does not include a hotel, just the sequence/set of tours and travel (coach etc).

Tours	Cost	Available spaces
Real Britain (6 days)	£ 1200	30
Britain and Ireland Explorer (16 days)	£ 2000	40
Best of Britain (12 days)	£ 2900	30

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Appendix 2 – Hotel options

Hotel	Single bed	Double bed	Family Suite
Hilton London Hotel	£375	£775	£950
London Marriott Hotel	£300	£500	£900
Travelodge Brighton Seafront	£80	£120	£150
Kings Hotel Brighton	£180	£400	£520
Leonardo Hotel Brighton	£180	£400	£520
Nevis Bank Inn, Fort William	£90	£100	£155

Presume 20 spaces available for each room type at each hotel.

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Appendix 3 – Discount rates

A tour package is the selection of a Holiday tour package and a hotel.

	Room Type	Discount
Any Tour Package	Single Bed	10%
	Double Bed	20%
	Family Suite	40%

Spaces dependant on individual bookings made.