UNIVERSITY OF LONDON

CM3070

BSc EXAMINATION

COMPUTER SCIENCE

Final Project

Release date: Monday 4 March 2024 at 12:00 midday Greenwich Mean Time

Close date: Tuesday 5 March 2024 by 12:00 midday Greenwich Mean Time

Time allowed: 4 hours to submit

INSTRUCTIONS TO CANDIDATES:

There are five questions in this examination paper. You should answer no more than **THREE** questions. Each question carries 20 marks. The marks for each part of a question are indicated at the end of the part in [.] brackets.

There are 60 marks available on this paper.

A handheld non-programmable calculator may be used when answering questions on this paper but it must not be able to display graphics, text or algebraic equations. Please hold your calculator to the camera at the start of the examination to clearly show the make and type.

You may use **ONE** A4 page of previously prepared notes in this examination. Please hold up your notes to the camera at the start of the examination.

File upload is **NOT** permitted in this examination.

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Question 1 Project report

(a) What is the purpose of the literature review (or literature survey) in the project report? [4 marks]

(b) This question relates to the background reading you did as part of the project. You would have read a range of material, some of which would contribute to your literature review and some which did not. Explain in general why some material makes it into the review/survey, and some does not.

Of the material that you read while doing your project, give examples of material that you *included* in your own literature review and material you *omitted*, and explain in both cases why you made those choices.

[10 marks]

(c) In general, what kind of material is suited to being in an appendix? Substantiate your answer with concrete examples.

[2 marks]

(d) If you included appendices, describe briefly what they contained and justify why you chose to use them; if you did not, explain why you did not.

[4 marks]

Question 2 Project design

The project you did was based on a template, that you chose from a selection of template options. Many of the template options required the design and development of working code, and some required design of aspects related to the user experience.

i. Which template did you choose, and why?

[4 marks]

ii. Summarise the technical challenge in your project.

[4 marks]

iii. Summarise in a few sentences the main solution you came up with to address the technical challenge.

[3 marks]

iv. Provide a detailed description—including a diagram as overview—of your technical solution, that would allow a fellow student, or other technically competent person, to be able to implement the solution that you came up with.

[9 marks]

Question 3 Evaluation

(a) Reflect on how you carried out evaluation in your project.

- Describe the method(s) you used to evaluate the work you had done, and discuss whether these were ultimately the best choices, and if not, what other approach(es) you could have utilised.

[6 marks]

- Describe the results of your evaluation.

[5 marks]

- Explain how you presented your evaluation results. Justify your choice of presentation approach.

[4 marks]

(b) Reflect on how you managed your project materials: how did you go about maintaining your project outputs such as source code, user interface designs, and so on? Did you use a versioning system? Did you do backups? Would you do things differently if you were to do this project again?

[5 marks]

Question 4 Self-reflection

Consider what you ended up developing for your project.

i. Describe briefly what you achieved.

[4 marks]

ii. Identify **ONE** part of your work that you consider to be your best achievement in the project. Justify why you feel this.

[8 marks]

iii. Identify **ONE** part of your work that is the least high-quality part of the project. Again, justify why you have chosen this aspect or part, discuss possible reasons for the weakness, and propose what could have been done to achieve better quality. (NOTE that this is not a focus on failure, but a focus on how to achieve high quality outcomes.)

[8 marks]

Question 5 Further work

Imagine that your project is going to be taken on by another student next year, to extend or improve what you have achieved.

i. Would you advise a rewrite of your code or any parts of your design, and if so, what would you advise should be done differently? If you believe that your code is usable as it stands, you should justify this.

[4 marks]

ii. Identify **TWO** things that someone taking forward this project might include in their project work, with justification of why you feel these are important aspects for further work. Depending on your specific project and what you achieved, these may be areas where you found potential new and exciting things you might want to do. For example, adding of interesting features; evaluating other ML approaches; applying your work to a different data corpus; etc. They should not simply be things you had planned from the start but simply did not have time to do.

[8 marks]

iii. For each of these, how would you suggest the student approach the work, and what advice would you give them as to how to carry it out?

[8 marks]

END OF PAPER

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