

Introduction to Software Engineering (F28SD) 2021-22

Specification of Coursework-2

Reflections on a Software Engineering Project: *The London Ambulance Service Computer Aided Dispatch System Failure*

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THIS IS AN INDIVIDUAL PROJECT

While discussion with fellow students as to the general nature of this project is acceptable, it is critically important that the solution you adopt and report are completely your own work. The re-use of other peoples work is not permitted and if identified will be treated as a disciplinary matter. Information on plagiarism can be found via

<https://www.hw.ac.uk/students/studies/examinations/plagiarism.htm>

1 Introduction

F28SD is assessed 100% by coursework. The coursework is divided into 2 parts, this document specifies what is required for the second part – Coursework-2.

2 The tasks involved in Coursework-2

On 26 October 1992 the London Ambulance Service deployed a new bespoke Computer Aided Dispatch (CAD) system. The system led to significant operational delays. Your task is to re-search the CAD system and its failings predominately from a software engineering perspective. Specifically, you have been set **4 tasks** as described below. In support of these tasks, 2 sources are provided on Canvas (see “Additional Reading Material” module):

- A copy of the: *Report of the Inquiry Into The London Ambulance Service (February 1993)* The Communications Directorate, South West Thames Regional Health Authority (Original ISBN No: 0-905133-70-6).
- *London Ambulance Service Software Failure*, Mukhtar Adamu, Abdulhameed Alkazmi, Abdulmajeed Alsufyani, Bedour Al Shaigy, Dominic Chapman, Julian Chappell, 2010.

You are not, however, limited to these resources. All resources that you do make use of should be explicitly referenced within your report.

Description of Coursework-2 Tasks:

T1: Describe the context in which the CAD system was developed together with the capabilities that it was intended to provide. **(6-marks)** [70-words]

T2: Describe what went wrong operationally when the CAD system was deployed. **(4-marks)** [50-words]

T3: Give **3 examples** of bad practice from the perspective software engineering that contributed to the failure of the CAD system. Specifically, for each of your **3 examples**, describe:

- The contributing factor(s) from a software engineering perspective, AND
- How the contributing factor(s) might have been avoided if alternative software engineering practices had been adopted during the development of the CAD system. Your answer should clearly justify your recommendation(s).

(15-marks) [180-words]

T4: Identify **3 factors** that contributed to the failure of the CAD system which are not directly related to software engineering. **(3-marks)**

The use of diagrams is encouraged wherever appropriate. Note that word counts specified above are for guidance only.

3 Your Submission

Your submission **should** take the form of a report (**pdf format**)¹. As part of the University's work to promote Academic Integrity you are required to include a completed *Standard Declaration of Authorship* form in front of the title page of your coursework report. A copy of the *Standard Declaration of Authorship* form can be found within the **Course Information** module for F28SD on Canvas. Your title page **should** include:

- report title (including course code)
- date of submission
- your name
- your "Person Identification (Person ID)" (i.e. your H00XXXXXX code)
- your degree programme
- your campus of study

Your report **should** contain page and section numbers, i.e. a separate section for each of the **4 tasks** defined above. **4-marks** are allocated to the quality of your report including your referencing.

¹ Note that Microsoft Word allows you to export a document as a pdf file.

4 Submission deadline for Coursework-2

Coursework-2 counts for 20% of the overall mark for the course. Your report should be submitted via Canvas. The submission link can be found within the **Assessments** link of the F28SD **Course Navigation** panel. The **deadline** for submitting **Coursework-2** is **Thursday 7 April 2022:**

3.30pm Edinburgh (local time)

11.59pm Malaysia (local time)

11.59pm Dubai (local time)

The standard penalty for the late submission of coursework will be applied unless evidence of Mitigating Circumstances is provided (see Undergraduate Programme Handbook for details).