12SDD 2019 AT2 Theory – marking guidelines

Question 1: 10 marks

Software Development Approaches

The proposed IT system consists of 4 main elements:

- website
- mobile apps
- database
- desktop application to manage the the database, website and financial transactions (accounting, invoicing, payments etc)

Write a brief report to the client which recommends a software development approach for each element of the proposed IT system and justifies each recommendation.

Mapping Grid

H1.1, H1.2

Marking Guidelines

For each element:

- recommends approach 1 mark
- justifies approach 1 mark

2 discretionary marks for quality of response

Question 2: 10 marks

There are literally thousands of different programming languages. They all have different strengths and weaknesses which makes them suited to some tasks but not suited to others. Research the most popular languages that are in use today and evaluate the most appropriate language to use for each of the 4 elements of the proposed IT system. You can find more information evaluating the strengths and weaknesses of different languages here and here.

Write a brief report to the client which recommends a programming language for each element of the proposed IT system and justifies each recommendation.

Mapping Grid

H2.1, H2.2

Marking Guidelines

For each element:

- recommends programming language 1 mark
- justifies programming language 1 mark

2 discretionary marks for quality of response

Question 3: 10 marks

Development Team

A software development team can consist of a few or many people depending on the size and complexity of the project. Do some research on the typical members of software development teams and the roles they fulfil. A good place to start your research is here.

Write a brief report to the client which recommends the composition of the team for developing the proposed IT system. Describe the role of each member of the team and justify their inclusion (maximum team size 5 personnel).

Mapping Grid

H6.1

Marking Guidelines

Identifies appropriate team members: 1-3 marks

Adequately describes roles of team members: 1-3 marks

Justifies inclusion of each member: 1-4 marks

Question 4: 10 marks

Social, Ethical and Legal Issues

Write a brief report for the client identifying the most relevant social, ethical or legal issues likely to be raised by this project. In each case explain the issue and recommend actions to be taken to address it. You should identify at least 5 potential issues.

Mapping Grid

H3.1

Marking Guidelines

For each potential issue:

- identifies issue 1 mark
- recommends action 1 mark