Domain Analysis Marking Guideline

1. Introduction (25%)

For the introduction section assessment, you are expected to assess the quality of problem explanation and analysis of the domain. Things to check:

- **The problem explanation**: Is the problem that the software is supposed to solve explained adequately.
- **The need for the application (motivation)**: Does the section explain the need for this software or the motivation? Why would someone use the proposed software?
- **How the software solves the problem**: Does the section include a brief explanation of feature(s) of the proposed software.

  Examples can be found on QMplus.

Marking guideline

- **Mark 5**: All the above is clearly explained with some examples and/or references to explain the problem.
- **Mark 4**: All the above is clearly explained.
- **Mark 3**: All the above is explained adequately. The definition is enough to understand the problem, but some parts might be confusing or not clear enough.
- **Mark 2**: Some of the above is explained briefly. The problem stated adequately but the writing is not good enough to understand the problem at hand.
- **Mark 1**: Problem is stated but not explained. The writing only states what the software does but doesn't explain the problem at all.
- **Mark 0**: If the section is empty or missing.

2. Personas or User Roles (15%)

Did the analysis identify all necessary personas (roles)? Does the section adequately explain different users of the systems?

- **Mark 5**: All users and customers identified and the difference between the users are clearly explained.
- **Mark 4**: All the users and customers identified but the difference is not clearly explained.
- **Mark 3**: Most of the users and customers identified and the difference is adequately explained.
- **Mark 2**: A few of the users and customers identified and the difference briefly explained.
- **Mark 1**: Missing almost all the users and customers and the difference isn't explained.
- **Mark 0**: If the section is empty or missing.

"Create separate user and customer personas whenever the users and the customers are not the same people. This allows you to capture the user and the customer-specific needs, and it makes divergent or conflicting goals easier to see."

A few good examples:

Admin: The system administrator is the user associated with the system that will ensure the smooth running of it. They will ensure that everything works as expected, fixing bugs and errors as they arise. The system admins look at data being fed into the system and make sense of it, they are the middle man between the clinicians and the system and ensure that the system is working in the way the other actors expect.

The system admins see value in the system, as it is their job to ensure the accuracy of the system and ensure its continued function. Updating and maintaining the system correctly will ensure the accuracy of the system, which will help healthcare professionals in the long term, potentially saving patient's lives. As an example, a patient may be displaying symptoms for a life-threatening disease that the doctor cannot properly diagnose. With use of the system however, this can help the diagnosis, and this is made possible by having a fully functional system. In this sense, this persona realises value in the system via the cause of helping people.

Typical system administrator is:

- Very computer literate.
- Has an excellent understanding of the system, can support other users with their queries.
- Has a basic understanding of medical knowledge, but is not a qualified doctor.
- Very busy with day-to-day tasks, any additional tasks may take some time to complete.

Doctor: Doctors and medical professionals are the users who need the system to aid in the diagnosis of patients. The system will operate alongside them during the consultation process between the patient and the doctor, and the doctor/professional will have the opportunity whenever necessary to use the system for reference. Such use involves inputting patient data into the system, such as height, weight, temperature etc. as well as inputting key symptoms a patient has.

As an example, if a patient comes in with a rare combination of symptoms and a doctor is unsure, the system will be able to help the doctor. While it is important to note that the system should not in any circumstance replace the doctor, the doctor is able to gain further information, which improves the service a patient receives, to ensure the correct diagnosis. In this sense, the system is valuable in providing greater accuracy, and can also speed up the process which benefits health providers, as they can tend to more patients.

Clinician One

● Young, newly qualified and has a good body of up-to-date medical knowledge
● Very computer literate
● Only newly qualified so may sometimes doubt own diagnoses, also more likely to make errors and misdiagnoses

Clinician Two

● Older, qualified some time ago
● Medium computer literacy. Will need some training to use new systems
● Very experienced in diagnosis.

3. Environment (10%)

In this section, students expected to discuss the environment the software is going to run on.

- **Existing software environment**: Does the section include discussion/explanation of the platform the current applications run on?
- **Justification**: Does the section include a brief discussion on why the selected environment/platform is a good choice for the proposed software. The platform of the existing systems might be used for justification.

Marking guideline

- **Mark 5**: Platform(s) of the existing software and justification is clearly explained
- **Mark 4**: Platform(s) of the existing software clearly explained and section includes brief justification
- **Mark 3**: Platform(s) of the existing software briefly explained and section includes brief justification
- **Mark 2**: Platform(s) of the existing software briefly explained without justification
- **Mark 1**: Platform(s) of the existing software poorly explained without justification
- **Mark 0**: If the section is empty or missing.

4. Tasks and Procedures (15%)

In this section students expected to discuss how the users described in Section 2 use the software (what do they perform with the existing software).

- **Users' tasks**: Does the report include tasks for all roles/personas explaining what they use the software for.
- **Key tasks**: Does the report include all the key tasks discussed in the other parts of the report (esp. introduction)
- **New functionality/tasks** (optional): Does the section include description of new tasks if the software offers functionality that existing software doesn't provide

Marking guideline

- **Mark 5**: All key tasks undertaken by the roles/personas are described in section 3 is included.
- **Mark 4**: Most key tasks undertaken by the roles/personas are described in section 3 is included. (might be missing a key task but all users must be mentioned in the section)
- **Mark 3**: Missing some tasks and roles/personas from section 3.
- **Mark 2**: Missing many of the tasks and roles/personas from section 3.
- **Mark 1**: Missing majority of the tasks and none of the roles/personas from section 3 are mentioned.
- **Mark 0**: If the section is empty or missing.

Example tasks for a cryptocurrency exchange platform:

Buy and sell coins: When buying/selling coins the trader can specify the number of coins and at what rate they want to purchase/sell at. This will then be placed on the order book at the exchange. When the trades in the order book match, the order trade will be successfully executed, and the account will be updated to reflect the changes.

Chatbot: Users can currently seek support from agents by emailing the exchanges directly. However, this can be very slow, we will have a chatbot within the app that can answer frequently asked a question very quickly. It will also be tailored to the current actor so can answer specific questions.

Setup alerts for coin price: The trader can set an alert for when a coin reaches a specific price, or when the individual makes profit/loss. The alert can be set as email, alarm, notification or a combination of these. The app will periodically check for changes in price and alert the user if the case is satisfied.

Import Portfolio: When the account holder adds his exchange's API, all the coins he/she holding is automatically imported. Once the coins are imported into the app, the total asset value for each coin is estimated using the https://coinmarketcap.com/ API.

5. Competing Software (10%)

In this section students expected to briefly introduce similar software and functionalities they provide. Section must also include pros and cons of these software.

Marking guideline

- **Mark 5**: Existing software and the provided functionalities are explained, and pros and cons of these software discussed in detail
- **Mark 4**: Existing software and the provided functionalities are explained, and pros and cons of these software discussed adequately (adequately in here means that someone who doesn't know about the application or the domain will have some idea of what these software offer and what's good and bad about them)
- **Mark 3**: Existing software and the provided functionalities are explained (either pros or cons or function explanation is missing or very brief)
- **Mark 2**: Existing software is described poorly (very brief or no explanation of functionalities and no discussion of pros of cons)
- **Mark 1**: Existing software just mentioned by name or section just includes very brief functionality descriptions
- **Mark 0**: If the section is empty or missing.

In this section, groups are expected to justify the functionality that they will include in their application (at least some of them) via the explanation of the functionalities of the existing software and the discussion of pros and cons of these software.

6. Domain Model (10%)

How closely do the Domain Model included in the report matches the information provided in the previous sections?

- **Mark 5**: Domain model represents all concepts mentioned in the report and it doesn't contain any errors (only concepts included, and relationships correctly identified with correct arrows)
- **Mark 4**: Domain model represents all key concepts mentioned in the report and it doesn't contain any major mistakes.
- **Mark 3**: Domain model represents majority of the key concepts mentioned in the report and it doesn't contain any major mistakes.

- **Mark 2**: Domain model represents some of the key concepts mentioned in the report and it does contain some mistakes.
- **Mark 1**: Domain model represents only few of the concepts mentioned in the report and it does contain a lot of mistakes.
- **Mark 0**: If the section is empty or missing.

7. Quality of Writing (10%)

Is the report written in an easy to understand and brief manner? Is the correct terminology used? Are there any spelling or grammatical mistakes in the report?

Marking guideline

- **Mark 5**: Report is well written, easy to understand and necessary terminology is used.
- **Mark 4**: Report is well written, easy to understand and terminology is not used in some places where necessary. Report might contain minor mistakes.
- **Mark 3**: Report doesn't contain any grammatical mistakes, but terminology is not used where necessary.
- **Mark 2**: Report does contain some grammatical mistakes and necessary terminology is not used in a high number of places. Report is hard to follow, ideas are spread out to multiple sections and there is a lot of repetition.
- **Mark 1**: Report contains a high number of grammatical mistakes and correct terminology is not at all. Report seems to be written haphazardly.
- **Mark 0**: If the section is empty or missing.

8. Formatting (5%)

- **Mark 5**: Report follows the given format (of the template document) exactly and whitespaces are arranged similarly between sections and sub-sections.
- **Mark 4**: Report follows the given format exactly and whitespaces are arranged similarly between sections and sub sections. There might be few extra lines of space between paragraphs and sections.
- **Mark 3**: Report follows the given format exactly and whitespaces are not arranged similarly between sections and sub sections. Some places there are too much whitespace and other there is too few.
- **Mark 2**: Report follows the given format exactly and whitespaces are not managed at all.
- **Mark 1**: Report follows the given format however there are some differences between template and submission. Whitespaces are not managed at all.
- **Mark 0**: Report doesn't follow the given format.