

DEVELOPMENT OF A TOOL FOR PREDICTION OF RARE DISEASES BASED ON PATIENT SYMPTOMS

By

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Mandatory Assignment 1
Course: SE6-POM
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1 Answer part one

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The Maersk Mc-Kinney Moeller Institute
University of Southern Denmark

1 Answer part one

| Stakeholder | Interest |
|-----------------------|---|
| General Practitioners | They are our target demographic as they use the service to provide better healthcare to their clients. Developing our program will be able to increase the confidence of their diagnoses. |
| Developers | They are interested in it because their business and thereby wages depends on it, delivering a good product could gain them good advantages when it comes to income and or future job prospects. |
| Healthcare companies | The companies that hires the General Practitioners are the one who will most likely be paying for our service, their interested is whether this will earn them more revenue either in the long run or short term. |

In this project, the group are using a Top-Down estimation process because of the following reasons:

- It's the first time the group develops a project for healthcare and thereby don't know completely what is involved yet.
- It's a small project and the group only have two developers, the scope of the project is small.
- There is no contract involved.
- There is no current customer, only general practitioners who have offered to guide and therefore no details are needed for the customers.

| Task | Dependency | Estimated Time (hours) |
|--------------------|---------------------------|------------------------|
| ISymptom | | |
| Region | | |
| IDisease | | |
| Symptom | ISymptom, Region | |
| Disease | IDisease | |
| DatabaseController | Disease, Symptom | |
| DataController | DatabaseController | |
| DataRetriver | DatabaseController | |
| IDeterminer | | |
| RDDeterminer | IDeterminer, DataRetriver | |

Slut: 28.April

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|-------------------------------|---|------------------------|--|---------------------------|
| | Project Overview Statement | Rare disease Predictor | | Simon dos Reis Spedsbjerg |
| Problem/Opportunity | We see a risk that a healthcare professional might miss certain rare conditions a patient might suffer from, because the rarity and lack of knowledge makes it so the doctor or nurse might not suspect it and thereby miss it. | | | |
| Goal | To develop an application that will help the health care professional to deduce whether a patient suffers from a rare disease | | | |
| Objectives | <ul style="list-style-type: none"> • Develop a Backend system to calculate diseases based on symptoms • Develop a Frontend to allow interaction from any computer • Establish a server to host a beta version • Deploy public version | | | |
| Success Criteria | <ul style="list-style-type: none"> • The system can predict diseases based on given symptoms • The system is positively received by general practitioners • The system is being used by general practitioners | | | |
| Assumptions, Risks, Obstacles | <ul style="list-style-type: none"> • All general practitioners have access to the internet • Server Errors might occur • Some general practitioners don't have the required computer knowledge to use the system | | | |
| | Simon Spedsbjerg | 07 – 03 – 23 | | |

Read stuff from[Larson2021].