FIT3164 - Final Project presentation

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Project background

- The aim of this project is to make users aware of heart disease and the risks associated

- Our product is designed to be the **first step** for users to see if they are at risk

- This is done by providing a prediction of risk based on user inputs

- And with important information around the disease and how to prevent it
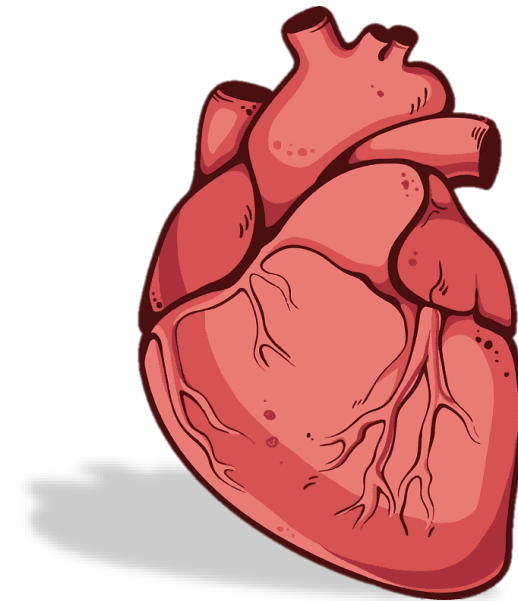
Functionality of product

- The product was made to be simple, aesthetic and useful

- It takes user input of medical information via a form

- Outputs a prediction of high or low risk of heart disease

- Users will received tailored information on next steps, based on their result

How our product is built (Methodology)

1 Data pre-processing

2 Feature Selection
→ Top 15 most frequent Features (MS excel)

3 Model Training
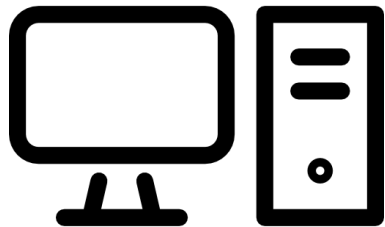+   Voting Classifier

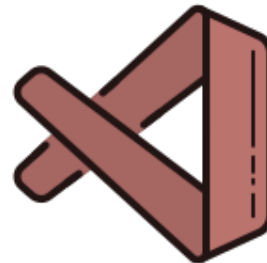**4** Website Implementation
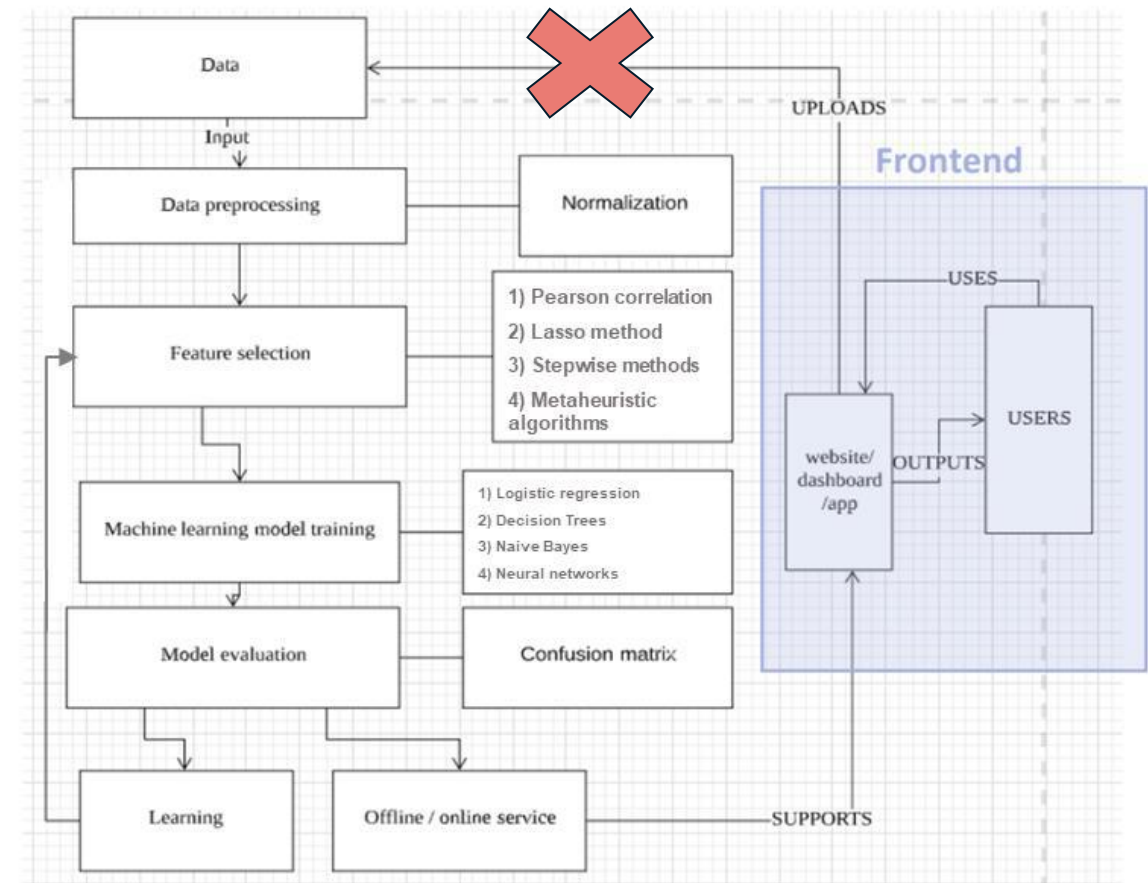
Software & hardware used

Hardware	Software	Modules/Packages
- Personal laptop - Desktop computer	- Visual Studio Code - Python - R - Git - PyCharm	- Built-in functions - GA - Scikit-learn - Pre-processing - Classifiers - Metrics - Django
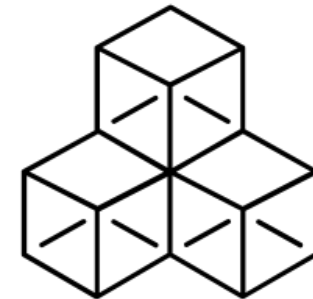
Project management

Project management

Scope

Team management

Risks

Project management methodology

- Main approach to software development has been **iterative approach**

    - This include an iterative style with feedback loop between process steps

    - Particularly apparent in building predictive models

    - Also apparent in website development

Project management tools

- File management
  - Github
  - Google Drive

- Schedule management
  - Excel WBS

- Communication
  - Messenger
  - Zoom
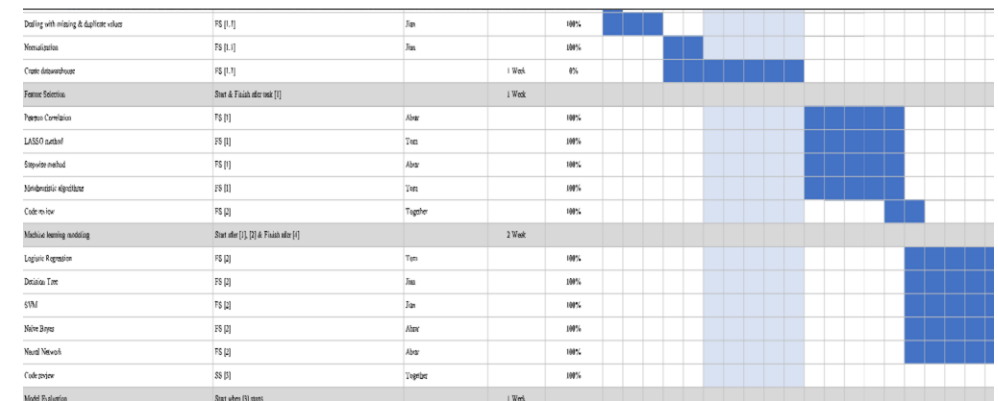
Project outcome

Welcome to Hearty!

- User friendly and interactive

- Aesthetically pleasing

- User can input data

- Data input security

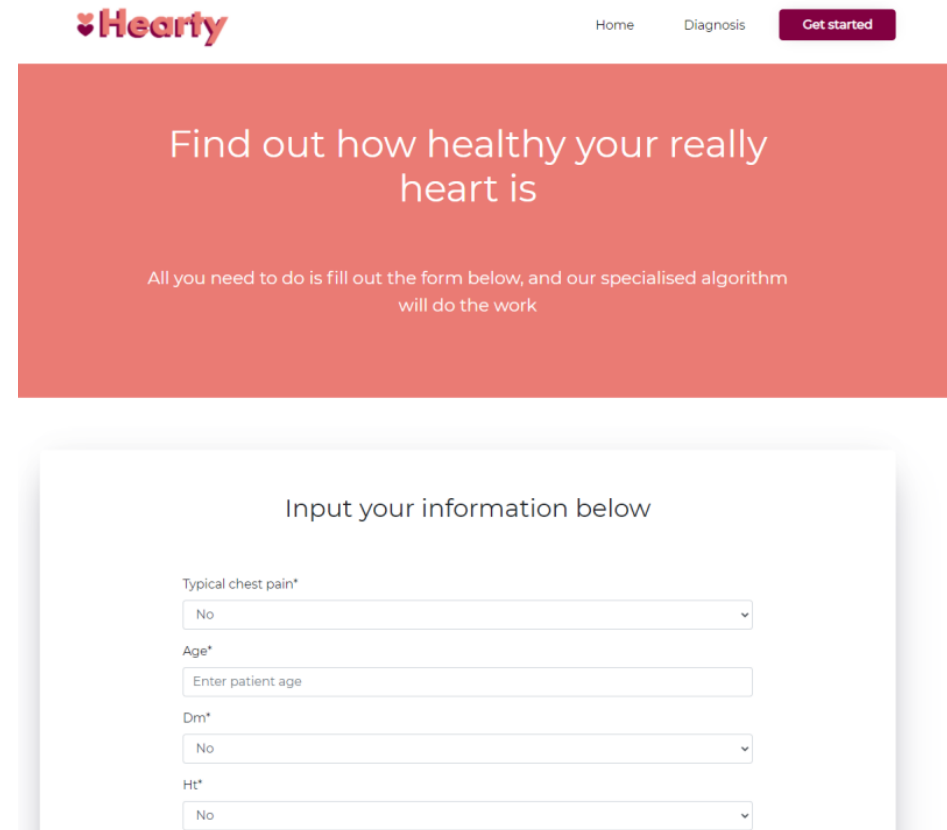- Output prediction and what to do next

Welcome to Hearty!

A change of 'heart'

We've remove some original features including:

- 'uploading file' functionality

- A 'contact us' page

- Input Data is not used for further training of the model

Limitations of product

1 Not available if not connected to the Internet

2 Does NOT diagnose someone, ONLY predict how likely they have a heart disease

3 Currently, user needs to know all values to get the most accurate prediction

Test summary

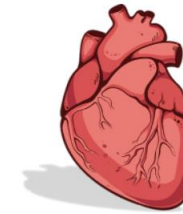| Test ID	Priority	Description	Expected output	Status
1	High	Inputting characters & negative number should not be accepted	An error pops up stating to input correct input type	SUCCESS
2	High	Accessible using the Internet	All page scan be seen on browser	SUCCESS
3	Low	Not available / accessible when offline	Error page	SUCCESS

Conclusion

- Overall very content with the project

- We believe Hearty to be a success with what we initially set out to do for this unit

- All planning and processes prepared since start of the year have been essential

- We look forward to sharing the project with the world

Thank you