# project canvas

Project name Organ failure following cardiac surgery – the use of AI for prediction modelling

Project owner _____

## Purpose
What is the intent of this project?
Why are we doing this project?

This project aims to see if AI can be used make models that are more precise than humans and the previous EuroScore II model when it comes to predicting and detecting complications in patients before surgery

## Scope
What does this project contain?
What does this project not contain?

To create an AI model that classifies and predicts the risk of complications after a patient has undergone cardiac surgery. This project will not contain medical theory as to why the risks may be.

## Success Criteria
What do we need to achieve in order for the project to be successful?
How can the Success Criteria be measured?

We need to either achieve a successful model or a be able to conclude that there are no direct correlation features from data set and a chosen target variable. The success of our model can be measured by the use of statistical evaluations.

## Milestones
When will we start the project and when is the final deadline ?
What are the key milestones and when will they occur?
How can the milestones be measured?

We have finished the introduction, preface, state of the art and data description section, and we have created code to read all csv files into python

## Actions
Which activities need to be executed in order to reach a certain milestone?


First, the current draft of our project will be “polished” by incorporating feedback and changing the contents accordingly.

The group will meet after exams to clean current data set and begin creating the synthetic data around the dates 28/5 to the 6/6.

From 9/6 to 14/6 we will spend time with the code and try finding definite answers to our research questions.

Generally, the Gantt Chart will be used for overview of how far we are, and what needs to be done and when.

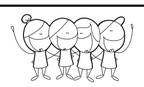
The report will be filled out and updated gradually while working with the data and creating models.

Lastly, the findings will be concluded on resulting a final product which we hand in.

## Outcome
What is the end result?

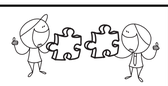
- A book
- A website
- An event

## Team
Who are the team members?
What are their roles in the project?



The team members consist of us students from DTU taking the 02466 course.

## Stakeholders
Who has an interest in the success of the project?
In what way are they involved in the project?



Doctors are especially interested, since it will yield a stronger clinical guidance for them. These doctors are the ones providing the data. Moreover, us students will also gain experience and more knowledge.

## Users
Who will benefit from the outcome of the project?

Both us, as we learn a lot from working with the problems within the project. Moreover, patients and doctors will eventually benefit from these results as well.

## Resources
What resources do we need in the project?
- Physical (office, building, server)
- Financial (money)
- Human (time, knowledge)

This project requires a lot of human time as well knowledge, work power and money; this is for both data gathering but also data analysis and development of AI models.
Also, a study environment is needed (so our campus).

## Constraints
What are the known limitations of the project?
- Physical (office, building, server)
- Financial (money)
- Human (time, knowledge, politics)

All members are studying AI, hence, there is a lack of medical knowledge, and the data is vast and unsorted making future tasks using this data more heavy. Moreover, the data set can only by used on one device due to law regarding personal information, this will delay efficiency and more work is needed, as we must create synthetic data for testing and model developing on own devices.

## Risks
Which risks may occur during the project?
How do we treat these risks?

Risks for us will include possible misclassifications or how well the AI models will fit to our given data. To treat such risks, we must consider our models careful and handle the data correctly (for instance, cleaning)