HEALTHCARE AIDER

A Disease Predictor and Healthy Lifestyle aiding AI bot

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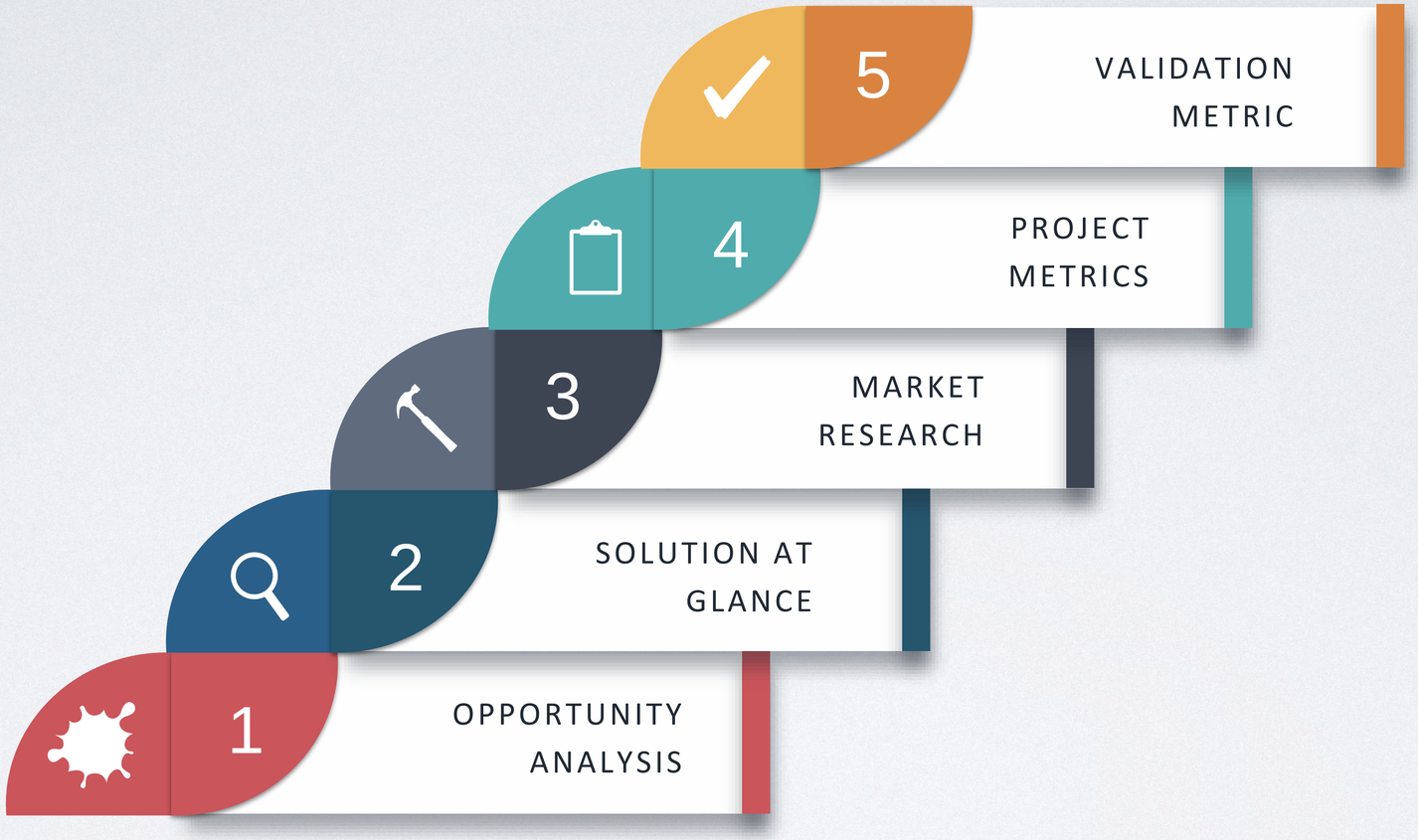

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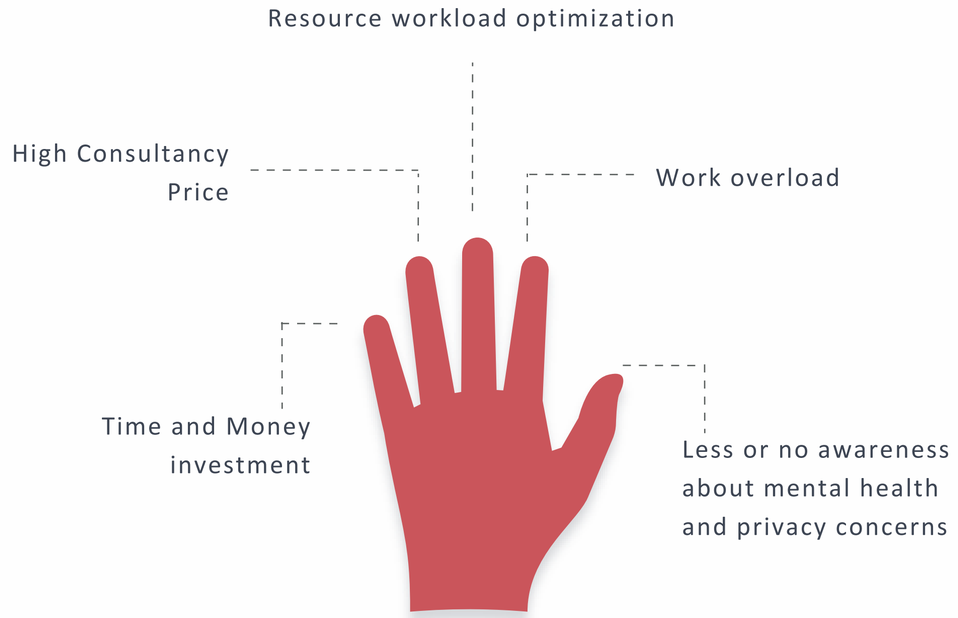
PROBLEM STATEMENT

With increasing population there are increasing number of healthcare concerns but number of doctors or diagnostic centers are really less also its not affordable for many. Also mental health has also became an important consult.

LIST OF PAIN POINTS



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SOLUTION AT GLANCE

PROPOSED SOLUTION

Design and deploy a chatbot as the first interface between the user and the support team and user and medical team. Chatbot can talk real time with users, understand if the request is redundant [generic in nature or procedure oriented]. Once the chatbot identifies the redundant request diverts the user to the pre-recorded solution procedure or set up a Realtime conversation with support team and medical team as per the request and appointment. Application can also predict disease when user enters the symptoms and talk and motivate users who might be feeling low.

PROS

- 24x7 availability.
- Workload reduction.
- Time and money saving.

CONS

- Misclassification error due to complex English.
- Misclassification due to common symptoms.

INPUT	Set of symptoms, healthcare concerns, conversations, user concerns, need for appointment
AI MODEL	AI model which can predict disease, learn and understand chat patterns, handover control to support team when necessary and track and book appointments
OUTPUT	Users with request type classified as redundant are diverted to solution procedures and user given advise and disease prediction with suggestion to book appointment.

DEMAND

Following teams need help:

1. Healthcare organizations
2. Healthcare management
3. Hospitals
4. Mental Health institutes

COMPETITION ANALYSIS

- Since it is an internal opportunity within the same health organization therein no direct competition.
- Employing more resources and organizations could be a possible alternative.

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PROJECT METRICS

BUDGET

Since it is an internal project it will be a cost center to the company where the budget will be equal to actuals of maintaining resources, hardware and software.

RISK

Misclassification of diseases due to common symptoms. Language complexity and diversity can lead to misclassification leading to delivering wrong replies to user.

TIMELINE

~ 3 Months

TECHNOLOGY

Convolution network based NLP based model powered by deep learning to learn and understand chat patterns

RESOURCE

- ❑ Healthcare Expert: 1
- ❑ Doctor: 1
- ❑ Product manager: 1
- ❑ Data scientist: 1
- ❑ Data Engineer: 2
- ❑ Deployment expert: 1

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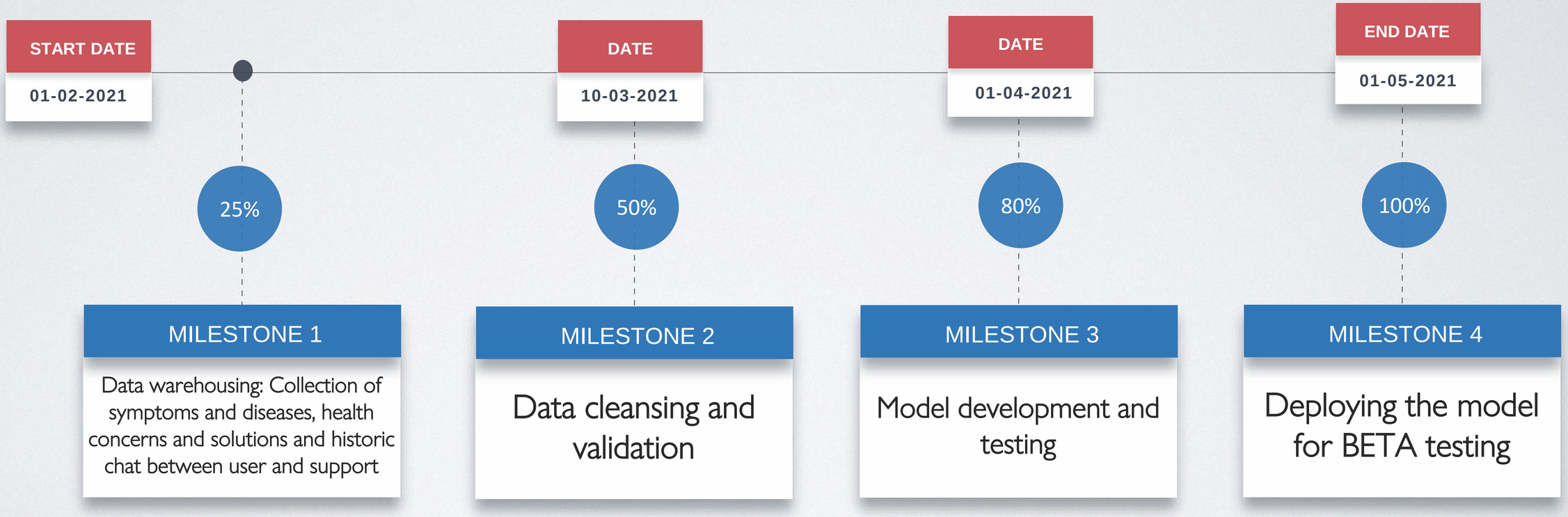
PROJECT METRICS



VALIDATION METRIC

Objective of this project is to Predict diseases when given symptoms and act as a bridge between healthcare experts and user. We aim to separate all incoming requests/chats between redundant and non redundant requests.

Validation ratio can be obtained by dividing correctly identified requests from total number of requests received.

Another validation metric can be user feedback. If the satisfaction level is high, the AI bot has done a great job.