Project Charter for Requirements Engineering.

Project Name: COVID-19 Disease Prediction	Champion: Hemang Garapati
Business or Process Owner: Dasaradha Ramcharantej Damisetty	Project Leader: Fadul Sikder
Problem Statement: • The current Pandemic has led many citizens into a state of panic, where they rush to a testing center, even when they do not need to. • Currently, we have no option but to visit a testing site, and usually the crowd at testing site is more prone to having covid-19 infection, the patient can be unnecessarily exposed to the virus. • Sudden breakout of virus overburdens the local testing sites; this can be reduced significantly if we provide a self testing tool. • Oftentimes, The testing equipment is expensive, ends up being a burden for whoever is paying, be it the patient or the government. • Sometimes, the test results may take up lot of time to get back, meanwhile the patients may start panicking, while this tool will give reliable information instantly, it can help patients plan.	Project Goal: • The project helps reducing both physical and financial burden on Covid-19 testing sites, by reducing the True Negative rates (Negativity rate). • Insurer and Government funds would be saved dramatically. • Unnecessary exposure to Covid-19 virus will be reduced. • Gives users confidence in difficult times as it mitigates uncertainty regarding the virus exposure and provides results instantly.

Business Case:
 To ensure the project is viable, showcased below is the financial study in the State of Texas and for the time frame of One year.

- Cost for Development - $150k
- Cost for Operation -$150k

- Each test will cost -$100
- Expected users- 15M
- Annual Testing Costs – $1.5B
- True Positive rate in Texas ~12.26%
- Symptomatic % - 84.69%
- Target tests reduced 5M
- Revenue saved – 500M

- An alternative source of revenue :
-Ad Revenue per 1000 users – 10$
-Total Revenue -$150,000

Project Scope:
 The project scope has been determined in the following points.

- When a user presents his symptoms to the tool, It will predict the class, whether the user is Positive or Negative for Covid-19, using the help of ML algorithm and the existing training Dataset.

- This tool is intended to be an interactive option for self assessment for patients who can access it from anywhere, and at anytime without the need of a healthcare worker.

Team Members:

1. Hemang Garapati

2. Dasaradha Ramcharantej Damisetty

3. Fadul Sikder

4. Anish Babu Nudurupati

Benefits:

- Reduces waiting period and Healthcare costs.
- Saves important medical infrastructure needed by someone else.
- Fewer testing and medical consultations.
- Helps in enhancing performance of medical Infrastructure.
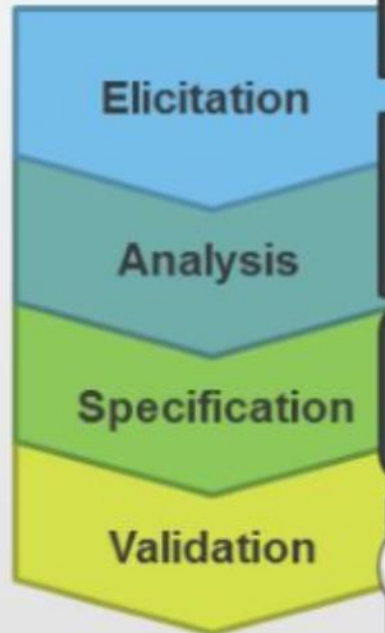
Timeline:
The following are milestones for Requirements Engineering Process (See Slide 2)
1. Elicitation
2. Analysis
3. Specification
4. Validation

Requirements Engineering

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REQUIREMENTS DEVELOPMENT

Elicitation

Stakeholder consultation, review and context normalization

Analysis

Understanding of desired system

Specification

Structured documentation of desired system

Validation

Identification of omitted, redundant & inconsistent req'mts

REQUIREMENTS MANAGEMENT

Traceability

Tracking where requirements are met

Change Mgmt
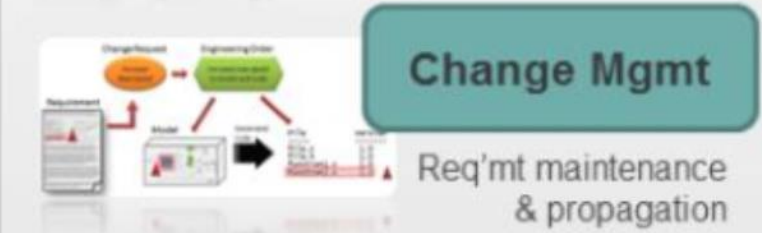
Req'mt maintenance & propagation

Fulfillment

Results & confirmation of successful fulfillment