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The requirements is all about the “What”… The document should introduce your project. It should give an overall description of the project, scope of the work, and list a few requirements, project outcomes etc. that are expected to be met in the course of the project. There may also be a management overview and indicative timeline for the project.

**1. PROJECT DESCRIPTION**

A Node & Angular full stack training app

I will take screenshots, write comments and create tutorials/instructions how to set up a single page web app with Node, Angular, database, Automation and CI.

I will go through the steps of creating the app, bringing the app to production, using Continuous Integration, Source Control, Testing and Metrics, good and bad practices.

Once this is complete to a certain degree, I will look into implementing some sort of machine learning algorithm or information retrieval, to add a Computer Science element to it, maybe some sort of recommender system for the single page app.

**2. PURPOSE**

College

“Training material to go help guide students along with an end to end software engineering project. To help students understand and learn, as the semester is very short and hard to fit so much in.”

IBM

“An in house training end to end app for new developer(s)/team(s), new employee’s or people who are new to Angular & Node”

**3. PROBLEM/OPPORTUNITY**

What type of web app am I creating? Theme? (although this is not really relevant for what I’m doing, in the end it would be nice to have something to show) (maybe just showing 3 tabs on the page like beginner, intermediate and advanced things?

An opportunity of this is for new developers/teams or even students struggling to understand the software engineering concepts to be brought up to speed by following a tutorial and instructions on how to get an app up and running from scratch.

**4. PROJECT GOAL**

To have a complete end to end tutorial/instructions of a single page Node & Angular web app, with explanations of how to create it, set up continuous integration, deployment and automated testing and metrics.

**5. PROJECT OBJECTIVES**

Create a Node Server

Create a single page angular app

Connect to a database

Set up test automation (unit and end to end)

Set up Task runners for building, publishing app, running tests

Host app somewhere (college?)

Use Continuous integration (Jenkins to preform builds)

Document the steps taken

Using Git as version control

**6. TECHNOLOGIES**

Node

Angular

SQL

Html

Css

NPM

Bower

Git

Grunt/Gulp

Karma

Protractor

Jenkins

**7. PROJECT TIMELINE**

End of semester 1

- Node & angular set up

- database connected

- automated testing

- continuous integration

- small proportion of instructions done

Semester 2

Week 1-3

-look into spark, IR, recommender system or something along the lines of these

-finish tutorials

Week 4-6

Research into comp science element, start implementing

-

Week 7-9

Tie up loose ends

Ensure good start on report

Week 10-12

-finish up & polish

**8. PROJECT SCOPE**

Quite large, since it will be encompassing all software related issues and terms creating a new project, database client side, server side, hosting, testing automation tutorials etc.

Creating a single page app with instructions & guidelines and varying difficult of content.

**9. ASSUMPTIONS AND CONSTRAINTS**

I will have a full set of tutorials set out for creating a single page web app

Also for automation and testing and continuous integration, full end to end of creating an app and deploying it.

Constraint is time, I do have a fair bit of knowledge in this, but as it will get time to get all the components connected. Also the biggest part of time will be taken up researching before implementation then going on to writing the tutorials/instructions.

**10. REFERENCES**

IBM

lecturer