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Contents

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.

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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.

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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

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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