**Workflowy**

**Group no.”4”**

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**1.Project Proposal**

a) **Customer:**

George R.R.Martin-the writer of “A song of Ice and Fire”

b) **Problem to be solved**:

There are lots of characters in the book and its so messy to remember them in an unordered fashion, if we store all of them in a list and also make some notes about each of the character, it becomes easy. Because of the workflowy, there will be order and everything makes more sense and we can know the relationships between characters and stuff.

Not only this, it can also be used to store things about some project a person is focused on like all work, ideas, and notes related to the project, bug tracking, product planning etc. which makes them more efficient.

This can also be used to note one’s regular chores.

c) **Description of project**:

This is a tool for making notes and creating lists. Main features are –

· Infinitely nested lists

· Zoom in on any sub-list

· Tag and filter list items

· Simple interface

· Collaboration with other lists

· Add notes to any list item

· Tap to edit

It looks simple but powerful enough to manage all the information.

d) **Justification about the size of proposal and time-limit**:

The project requires the implementation of complex data structures using Backbone nodejs, Babel, reactjs. It needs the establishment of server and client side communication. The lines of code required are nearly 1000-1200.Some of the other important things used are reactDOM, Socket i/o, Chai and Express. The whole code is written in modular format. Hence the period of 50 days is justifiable.

**2.Feasibility Study**

**Customer:**

* Though the preliminary customer is George R.R Martin , the product is aimed at anyone working with large amount of text data.

**Visibility Plan:**

* To interact and show the progress of the project to the customer the use of a version control system is ideal.
* The entire code could be maintained on github. Hence can take customer feedback and move on to the previous version(commit) of the project.
* The Entire team can form an organization on github and hence contribute to the project and at the same time following the work of others as well. This is a possible way of communication of team members.

**Task Statement:**

* The writing of a book could become messy owing to its size, complexity etc.
* Task is to minimize the customer’s complexity and provide them a product that could help them organize their work.

**Preliminary Requirements**

* Client Requirements are :
  + Browser like GoogleChrome.Avoid internet explorer because of incompatibilty with further technical requirements.
  + Linux or Windows Operating System.
  + Atleast 512MB RAM.
  + Atleast 100MB of Secondary Memory.
* Server Requirements :

Linux or Windows OS,Tangible amount of RAM,Estimated Memory depending on

usage.

Other requirements include a team to work,enough budget approved by the customer

**Suggested Deliverables:**

After the completion of project, customer would be able to organize his work in a ordered fashion.

The main features of the product are :

* Infinitely nested lists
* Tag and filter list items
* Simple interface
* Collaboration with other lists
* Add notes to any of the lists

**Process:**

* **Classical Waterfall model** is an ideal choice here.
* Since the requirement specifications are clear and the risks in the process are also minimal.
* Also there aren’t large number of specifications hence Classical Waterfall model is the best choice.

**Outline plan**

The main objective here is to organise the tasks,information,whatever data we want to organise.At first a prototype is built i.e a small to-do list or list of things are organised.

Adding more features to the prototype

Eg :Add-note,Delete,Share,Duplicate etc.

Checking whether the addition of a feature is supporting the previous system.

If not we have resolve it or skip adding that particular feature according to customer’s priority.

Further milestones to be fulfilled are :

* A User friendly Interface.
* Using various data structures to store the complex and huge data given by various users.
* Optimising the storage of data and re-usage of the same.
* Develop a database to store the organised data in the servers.
* Making sure the database and application run along well with each other.

Dividing the work among the team and making sure that specific goals of the various milestones are satisfactory to the customer.

**Risk Analysis**

Some of the risks are :

* Large number of users

More number of users increase the amount of data to be stored in the servers and organised correspondingly.This can be resolved by charging the customers so that limited usage can be executed.

* Data corruption.

Large amount of data can get easily corrupted if we don’t optimise the storage.

As a result the whole thing will become messy.Better data structures and

Optimising techniques will resolve this particular risk.

* Security.

Without a secure database anyone can easily manipulate data of other users.

Two factor authentication can be made available to customers.

Using **https** instead of **http** will make a more secure database.

* Estimating the budget accurately and checking if the customer’s needs are met and whether he is willing to pay extra money than the proposed to add more features.
* Management of time and optimum utilisation of resources to meet various milestones.

**Probable Technical Requirements**

* Backbone Nodejs
* ReactDOM
* Socket I/O
* Express
* React
* Babel