<nodebucket>

TECHNICAL DESIGN DOCUMENT

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# SECTION 1: INTRODUCTION

## Purpose

The purpose of this application is to provide users with a sign in page, and a tasks page to manage tasks. Tasks should have two categories, ToDo and Complete. In addition, the application should have a Home page, about us page, contact us page.

## Terminology

|  |  |
| --- | --- |
| **Name** | **Comments** |
| *MEAN Stack* | *MongoDB, Express, Angular, and Node.js* |
| *VS Code* | *Development IDE* |
| *SoapUI* | *API testing tool* |
| *MongoDB Compass* | *Database development IDE https://www.mongodb.com/* |
| *Angular Material* | [*https://material.angular.io/*](https://material.angular.io/) |
| *Flex-layout* | [*https://github.com/angular/flex-layout*](https://github.com/angular/flex-layout) |
| *Node.js* | https://nodejs.org/en/about |
| *Express* | https://expressjs.com/ |
| *Angular Material* | https://material.angular.io/ |

## User Personas

Who will use the app, how will they use the app, what are their needs vs wants. Buyer personas, consumer personas, stakeholder personas

# Persona 1 - Dan Patel

## Age: 43

## Gender: M

## Job Title: Software Developer

## Marital Status: M

## Short Bio: <complete this on your own>

# Persona 2 - Steven Prior

## Age: 35

## Gender: M

## Job Title: Marketing Manager

## Marital Status: Single

## Short Bio: <complete this on your own>

# Persona 3 - Miriam Nuero

A person sitting on a couch

Description automatically generated with low confidence

(*Old Woman Reading*, 2022)

## Age: 50

## Gender: F

## Job Title: Project Manager

## Marital Status: Widow

## Short Bio: <complete this on your own>

## User Stories

Further defines the behavior to the personas.

As a [type of use], I want [request] so that [justification]

Ex: As an older user, I want larger font so that I can easily read the screen.

Dan Patel

|  |
| --- |
| **Story** |
| As a technical user I need API documentation for task endpoints So I can integrate task management into our custom tools |
| As a technical user I want a CLI for quick task creation To streamline adding tasks without leaving the terminal |
| As a technical user I need to categorize tasks by project So I can easily filter tasks related to specific projects |
| As a technical user I need webhook support for task updates To receive real-time notifications in our development chat |
| As a technical user I want keyboard shortcuts for task actions To navigate and manage tasks more efficiently |

Steven Prior

|  |
| --- |
| **Story** |
| As a user I need task prioritization To focus on high-priority tasks and meet campaign deadlines |
| As a user, I want to be able to separate tasks by client to be able to keep them organized |
| As a working professional, I need to be able to work on mobile due to my busy schedule |
| As a marketing manager, I need to plan and execute a social media campaign to promote our upcoming product launch. |
| As a user I need a high level of security so my clients data is protected |

Miriam Nuero

|  |
| --- |
| **Story** |
| As a user, I want access secure in order to honor NDAs I have signed with clients |
| As a project manager, I need to create tasks to lead kickoff meetings for a new client project. |
| As a pm I need a way to change project status to complete so I can keep track of what’s been complete |
| As a Project Manager, I want to efficiently assign tasks to team members and track their progress to ensure the project stays on schedule and meets its objectives. |
| As a pm I need to have a way to prioritize tasks in order so I can see which deadlines are coming up |

## Work Estimations

A screenshot of a video game

Description automatically generated

|  |  |
| --- | --- |
| **Story 1** | **Points** |
| As a technical user I need API documentation for task endpoints So I can integrate task management into our custom tools | 3 |
| As a technical user I want a CLI for quick task creation To streamline adding tasks without leaving the terminal | 1 |
| As a technical user I need to categorize tasks by project So I can easily filter tasks related to specific projects | 3 |
| As a technical user I need webhook support for task updates To receive real-time notifications in our development chat | 5 |
| As a technical user I want keyboard shortcuts for task actions To navigate and manage tasks more efficiently | 1 |
| **Story 2** | **Points** |
| As a user I need task prioritization To focus on high-priority tasks and meet campaign deadlines | 1 |
| As a user, I want to be able to separate tasks by client to be able to keep them organized | 5 |
| As a working professional, I need to be able to work on mobile due to my busy schedule | 3 |
| As a marketing manager, I need to plan and execute a social media campaign to promote our upcoming product launch. | 3 |
| As a user I need a high level of security so my clients data is protected | 5 |
| **Story 3** | **Points** |
| As a user, I want access secure in order to honor NDAs I have signed with clients | 5 |
| As a project manager, I need to create tasks to lead kickoff meetings for a new client project. | 1 |
| As a pm I need a way to change project status to complete so I can keep track of what’s been complete | 1 |
| As a Project Manager, I want to efficiently assign tasks to team members and track their progress to ensure the project stays on schedule and meets its objectives. | 3 |
| As a pm I need to have a way to prioritize tasks in order so I can see which deadlines are coming up | 1 |

# SECTION 2: PROCESS DESIGN

## 2.1. Sitemap

*[Create a sitemap for the proposed website]*

## 2.2. Prototypes

[*https://www.eggradients.com/blog/ravenclaw-colors*](https://www.eggradients.com/blog/ravenclaw-colors) *House of RavenClaw Colors*

*[Make sure the prototypes cover every page/dialog/message in the proposed solution)*

## 2.3. ORD (Object Relational Diagram(s)

*[Create an ORD based on the proposed business rules]*

## 2.4. NoSQL Data Structure

*[Covert the above NoSQL Document Diagram into a NoSQL Data Structure (JSON data)]*

# SECTION 3: FUNCTIONAL DESIGN

## 3.1. Overview of the Design

[This section will cover what you are envisioning the system will do, specifically any minimum / maximum value of a field, navigation, error handling, and logging. If there are exceptions, explain how they are handled and under what circumstances they will be generated/thrown]

## 3.2. Functional Design

[This section is a list of the design definitions for the requirements in the BRD]

|  |  |
| --- | --- |
| **Requirement #** | **Design Definition** |
| R – 5 | Sign In Page  Node.js API:   * Employees: * Function: findEmployeeById * Route: /api/employees/:empId   + Example: localhost:3000/api/employees/1007 * Swagger: localhost:3000/api-docs   SoapUI Unit Tests:   * findEmployeeById   Angular:   * signin.component.html * signin.component.css * signin.component.ts * security.service.ts * Route: localhost:4200/security/signin |

## 3.3. Feedback/Comments

[This section is for any addition comments/feedback that will help business and other team members better understand the solution you built]

# SECTION 4: QA TESTING

## 4.1. QA Test Plan

*[Weekly Test Cases]*

## 4.2. Unit Tests

*[Images of SoapUI Unit Tests]*

# SECTION 4: REFERENCES

*old woman reading*. (2022, September 13). Unsplash. https://unsplash.com/photos/r\_3hUrJlLqc