Edesia

Meal planning made easy

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1. Project Definition

- American's eat out 4 to 5 times a week on average. Many people choose to eat out for the sake of convenience. It saves you time and a trip to the grocery store. Eating out, however, can be extremely expensive. The average American spends $232 eating out per month [*The Simple Dollar*]. The average cost of eating out is $12.75 per meal, while the average cost of cooking at home is $6.41 per meal [*Cheapism*]. Eating out is also much worse for your health. You take in an average of 200 more calories eating out than if you eat at home [*The Independent*].

- Planning meals can be an arduous and daunting task. Edesia aims to change that. Our goal is to make a user-friendly and intuitive meal planning application for the Android mobile platform. We hope to encourage people to eat healthier, save money, and improve their cooking ability.

- Edesia will allow the user to drag-and-drop different recipes into a day of the week. Users can search for recipes to add to their personal menu. If a user is unsure on what meal to cook, they can press a shuffle button and the application will select a variety of meals for that user.

2. Project Requirements

- Functional:
    - Drag-and-drop user interface
    - Interactive calendar
    - Database of recipes
    - Users can save recipes
    - Users can upload recipes
    - Filter recipe search
    - Automated grocery list based on choices by user

- Potential Features:
    - Voting System for Meals for families
    - Taking pictures of food items using the Google Vision API
    - Gives you ideas based on the ingredients you already have

- Usability:
    - User interface:

        - Android Application, using a graphical interface with search, drag and drop features and calendar
    - Performance:
        - Needs to be able to support many users at one time
        - Should be able to give live feedback when votes are cast for meals for multiple users
        - Should be able to update recipe list based on the ingredients given quickly
        - Should be quick and clean with drop and drag features

- System:
    - Hardware: Mobile devices (Android)
    - Software: Java using Android Studio
    - Database: SQLite Database system seems to be one of the best options for Android.

- Security:
    - Hash users Sensitive data
        - Passwords, user's secret recipes, and anything else that may want to be kept from others

- **3. Project Specification**
    - Focus / Domain / Area:
        - Foods!
        - To help people organize their meals
        - People who can't figure out what to cook

- Libraries / Frameworks / Development Environment
    - Active android
        - Helps with communication between app and SQLite
    - Android Virtual Device (AVD)
        - Emulates Android OS within Android Studio
    - Web Scraping using Python Selenium and Scrapy libraries
    - Still researching what Framework may be best for what we want

- Platform: Mobile
- Genre: Food/Planning Application

Edesia is a food planning and organization application for people who can't figure out what it is they want to cook. It will help people organize and plan their meals for the week so that they can eat healthier as well as save money while they are at it. Edesia is a mobile application primarily focused on the Android platform. It will be designed using Android Studio and will use an SQLite database to store user information as well as the list of recipes. The recipes will be added to the Database using Web Scraping which will be accomplished using the Python Selenium and Scrapy libraries.

4. System – Design Perspective – *Group responsibility*

- Identify subsystems – design point of view
  - Illustrate with class, use-case, UML, sequence ..... diagrams
  - Design choices (Optional)
- Sub-System Communication (Diagram and Description)
  - Controls
  - I/O
  - DataFlow
- Entity Relationship Model (E-R Model)
  - Example - https://en.wikipedia.org/wiki/Entity%E2%80%93relationship_model
- Overall operation - System Model
  - Simplified Sub-system to System interaction

5. System – Analysis Perspective – *Group responsibility*

- Identify subsystems – analysis point of view
- System (Tables and Description)
  - Data analysis
    - Data dictionary (Table - Name, Data Type, Description)
  - Process models
- Algorithm Analysis
  - Big - O analysis of overall System and Sub-Systems

6. Project Scrum Report - *Group Responsibility*

- Product Backlog (Table / Diagram)
- Sprint Backlog (Table / Diagram)
- Burndown Chart

7. Subsystems

7.1 Subsystem 1 – Name 1 - *Individual responsibility*

- Initial design and model
    - Illustrate with class, use-case, UML, sequence ..... diagrams
    - Design choices
- Data dictionary
- If refined (changed over the course of project)
    - Reason for refinement (Pro versus Con)
    - Changes from initial model
    - Refined model analysis
    - Refined design (Diagram and Description)
- Scrum Backlog (Product and Sprint - Link to Section 6)
- Coding
    - Approach (Functional, OOP)
    - Language
- User training
    - Training / User manual (needed for final report)
- Testing

7.2 Subsystem 2 – Name 2 - *Individual responsibility*

- Initial design and model
    - Illustrate with class, use-case, UML, sequence ..... diagrams
    - Design choices
- Data dictionary
- If refined (changed over the course of project)
    - Reason for refinement (Pro versus Con)
    - Changes from initial model
    - Refined model analysis
    - Refined design (Diagram and Description)
- Scrum Backlog (Product and Sprint - Link to Section 6)
- Coding
    - Approach (Functional, OOP)
    - Language
- User training
    - Training / User manual (needed for final report)
- Testing

7.3 Subsystem 3 – Name 3 - *Individual responsibility*

- Initial design and model
    - Illustrate with class, use-case, UML, sequence ..... diagrams

    - Design choices
- Data dictionary
- If refined (changed over the course of project)
    - Reason for refinement (Pro versus Con)
    - Changes from initial model
    - Refined model analysis
    - Refined design (Diagram and Description)
- Scrum Backlog (Product and Sprint - Link to Section 6)
- Coding
    - Approach (Functional, OOP)
    - Language
- User training
    - Training / User manual (needed for final report)
- Testing

7.4 Subsystem 4 – Name 4 - *Individual responsibility*

- Initial design and model
    - Illustrate with class, use-case, UML, sequence ..... diagrams
    - Design choices
- Data dictionary
- If refined (changed over the course of project)
    - Reason for refinement (Pro versus Con)
    - Changes from initial model
    - Refined model analysis
    - Refined design (Diagram and Description)
- Scrum Backlog (Product and Sprint - Link to Section 6)
- Coding
    - Approach (Functional, OOP)
    - Language
- User training
    - Training / User manual (needed for final report)
- Testing

8. Complete System – *Group responsibility*

- Final software/hardware product
- Source code and user manual – screenshots as needed - Technical report
    - Github Link

- Evaluation by client and instructor
- Team Member Descriptions

9. Sources

- Hamm, Trent. “Don't Eat Out as Often (188/365).” *The Simple Dollar*, TheSimpleDollar.com, 18 Oct. 2017, www.thesimpledollar.com/dont-eat-out-as-often-188365/.

- Lampert, Tess Rose. “Is Cooking at Home Really Cheaper Than Eating Out?” *Cheapism*, 11 July 2018, blog.cheapism.com/eating-at-home-vs-eating-out/.

- Cha, Ariana Eunjung. “Eating out at Restaurants Is Always Healthier than Guzzling Fast Food, Right? Wrong.” *The Independent*, Independent Digital News and Media, 16 July 2015, www.independent.co.uk/life-style/food-and-drink/news/why-eating-out-at-restaurants-may-be-just-as-bad-for-your-health-as-grabbing-fast-food-10394392.html.

This is just a guide, and use it to create/improve your report. Feel free to add sections. You are responsible for your own subsystem/s, not other members. You have to contribute to the team’s goals and objectives, and develop your subsystem/s, write your documents and slides.