FlickPick

Software Development Plan

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4.1 Plan Introduction

This Software Development Plan provides details for the planned development of FlickPick, a web application that provides users easy access to movie recommendations based on specific preferences or search input.

Flickpick allows the users to search for a given movie or genre and in turn, receive movie recommendations that match the input based on genre, plot, release year, or rating, as well as an option for browsing related movie recommendations. The goal of FlickPick is to result in easy browsing and faster choices when it comes to deciding on a movie to watch. We want to make our users' lives easier by providing them with movie options to watch and to diminish the amount of time wasted on finding a movie to fit everyone's preferences. Our development tasks will start with a search bar and result functionality that allows an input to be given and closely related movie titles will be suggested. Next is a menu, for options to browse through genres if a user does not have a particular preference. Another feature we would like to implement is a movie of the day option as generated by the website to display a completely random movie as an option to choose from. We also hope to make the website more personalized to each user by having a user profile to log in and out of which also includes the user's preferences in movies and genres to give a more personalized recommendation list. Lastly, we want to make sure to have information about the movies themselves such as where to watch it, a brief description, title, length, and anything else deemed important.

Sub-task Completion Dates:

- Create landing page: 1/23
- Create logo: 2/25
- Sign in: 3/18
- Create login page:
- Create home page: 1/23
- Make search bar component: 1/29
- General API integration: 1/29
- Create search results page: 3/5
- Make menu bar component: 3/5
- Create movie of the day page: 3/12
- Create browsing/recommendation page: 3/10

- Route menu option to pages: 3/10
- Filter by genre: 3/15
- Create user profile questionnaire: 3/19
- Update user profile: 3/22
- Personalized recommendations: 3/25

4.1.1 Project Deliverables

Project Proposal Document

- Due Week Two
- Written report consisting of a verbal description and justification
    - Verbal description
        - Provides a high-level overview of the project
        - Compares it to software programs that already exists
        - Lists its most important features
        - Mentions the hardware and software requirements
        - Indicates who the user is
        - Indicates how the application would be maintained
    - Justification:
        - Explains why project is appropriate for the class based on:
            - Applies and demonstrates what you have learned in other classes
            - Gives the opportunity to extend have you have learned
            - Technical difficulty is appropriate, not too hard but challenging
            - One semester being a reasonable amount of time to complete the project
            - You possess the tools and skills required
            - The project is interesting to you, your classmates, and your instructor

Requirements Specification Document [Initial]

- Due Week Five
- Captures low-level requirements for the project
- Specifies exactly what is being built
- Document includes
    - Introduction section:
        - Introduces the project to the reader for context for the user stories

- Function requirements:
  - A set of user stories that describe what the system must do along with a tracking board of some sort
  - Epic will be used to organize stories to break down tasks into smaller parts
  - Stories require acceptance criteria to verify stories were completed fully
- Performance requirements:
  - Specifies non-functional things that the project will do
- Environment requirements:
  - Specifies what is needed to develop and deploy the application

<u>Software Development Plan Document [Initial]</u>

- Due Week Seven
- Describes the process that will be used during leading to the production of all required documents and software for the project
- Document Includes
  - Plan Introduction
    - Introduces the project with a brief description of the activities that will take place and their completion dates from the master schedule
      - Project Deliverables
        - Describes all of the items which will be delivered to the customer and the delivery date for each one
  - Project Resources
    - Describes all of the different resources that will be used during development
      - Hardware Resources
        - Lists all hardware which is required during the project, both for development and the actual execution
      - Software Resources
        - Lists all software tools which are required during the project
  - Project Organization
    - Describe how the project is divided up into major functions
      - Provides a short description and brief development plan for each

        - Lists each team member with an explanation of their responsibilities
    - Project Schedule
        - Describes that process which will be used for development in a time-ordered way
        - Includes all tasks which will occur during development
            - GANTT Chart
                - Chart where the X axis is linear time and the Y axis is a listing of the tasks to be performed
                - Schedule to make it easier to visualize the duration of the subtasks in relationship to each other
            - Task / Resource Table
                - Shows the relationship between tasks and resources by showing the people, hardware, and software that the task will require use of

Software Development Plan Document [Updated]

- Due Week Twelve
- An updated version of the SDP previously created to stay on track with the real-time development of the project

Requirements Specification Document [Updated]

- Due Week Thirteen
- An updated version of the SRS previously created to stay on track with the real-time development of the project

Written Status Reports

- Due every other Monday starting Week Eight
- Reports to follow the general format of accomplishments, upcoming plans, and identified risks

Preliminary Demonstration Presentations

- Due Week Thirteen
- Practice run for final presentation
    - Powerpoint presentation addressing:
        - Title, introduction
        - Project description
        - Project goals
        - Project justification

        - Pictures of user interface
        - Announce demonstration
        - Project challenges
        - Status update
        - Thank you and questions
    - Demonstration of application
        - Starting and using as a user would
        - Shows all working parts of the project

Preliminary Version of Poster

- Due Week Fourteen
- First draft of final presentation poster
    - Title
    - Your name
    - LMU logo
    - Content
        - Describes the project
        - Provide an overview of the project purpose, operation, and main components or technologies
    - Graphics

Final Project Presentation

- Due Week Sixteen
- Final version of demonstration presentation and poster

Final Product Delivery [Final Report and Code]

- Due Week Sixteen
- 15 minute presentation of project
- Final version of code committed to repository
- Lessons Learned section
    - Provides information about things you learned during the project
- History section
    - Repository for changed notebook sections
    - Section for all old, pre-modified versions of any deliverable

4.2 Project Resources

4.2.1 Hardware Resources

- Personal computer or laptop
- Browser
- Minimum 4 GB of RAM
- Minimum 1 CPU core
- Minimum 20 GB storage space

4.2.2 Software Resources

- Visual Studio Code
- MacOS or Linux Operating System
- Google Firebase
- Node.js
    - Version: 18.14.1
- React JS

4.3 Project Organization

Anna:

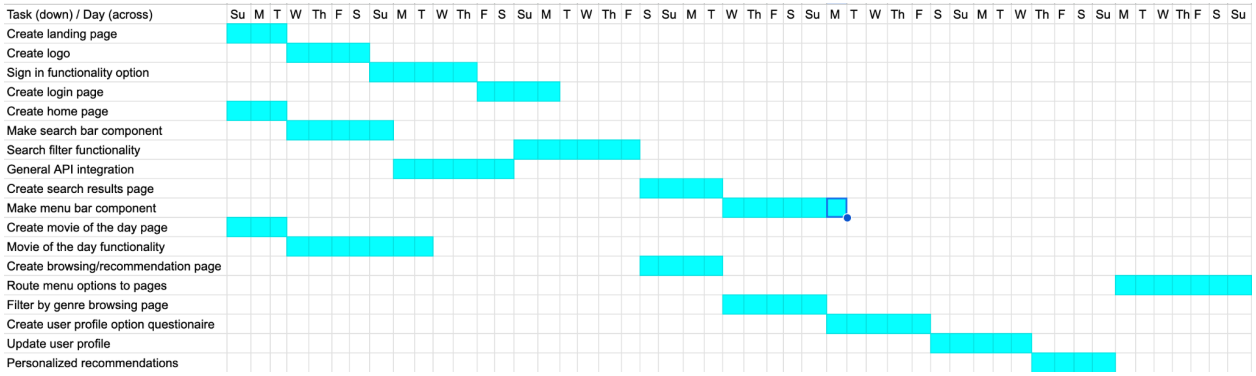
- Create landing page
- Create logo
- Sign-in functionality option
- Sign-in page
- Make menu bar component
- Create movie of the day page
- Movie of the day functionality
- Route menu bar options to pages
- Update user profile

Erin:

- Create home page
- Make search bar component
- General API integration
- Search filter functionality
- Create search results page
- Create browsing/recommendation page
- Filter by genre on browsing page
- Personalized recommendations
- Create user profile option questionnaire

4.4 Project Schedule

4.4.1 PERT / GANTT Chart



4.4.2 Task / Resource Table

Tasks	Person	Hardware	Software
Create landing page	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create logo	Anna	N/A	N/A
Sign-in functionality option	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Google Firebase Node.js Version: 18.14.1 React JS
Sign-in page	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Google Firebase Node.js Version: 18.14.1 React JS
Make menu bar component	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create movie of the day page	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Movie of the day functionality	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Route menu bar options to pages	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Update user profile	Anna	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create home page	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Make search bar component	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
General API integration	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Search filter functionality	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create search results page	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create browsing/recommendation page	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Filter by genre on browsing page	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Personalized recommendations	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS
Create user profile option questionaire	Erin	Personal computer or laptop Browser Minimum 4 GB of RAM Minimum 1 CPU core Minimum 20 GB storage space	Visual Studio Code MacOS or Linux Operating System Node.js Version: 18.14.1 React JS