Affordable Housing Search Application

Technical Design Document

Group 1

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Document Changes

|  |  |  |  |
| --- | --- | --- | --- |
| Revision # | Date | Author | Comments |
| 1.0 | 5/19/2022 | Joanna Smith | Original Document Creation |
| 2.0 | 5/22/2022 | Joanna Smith  Gary Johnston  Natalie Amaya  Devante McFarlane  Octavian Carteleanu | Product Requirements and Technical Requirements |
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Abstract

## Objective

To provide a website application available to the residents of Orange County, FL to search for affordable housing in their area. Outside of rent costs, affordable housing should include additional costs, such as electricity, gas, water, cable, fees, transportation, and food. Search results should also provide information about nearby schools, restaurants, shopping, and transit options. The application should be easy to access, user-friendly and provide quick results.

## Considerations

Client should consider costs such as web hosting, database hosting, and any developer fees, such as Google API costs. Data to be provided by the client. Editing the data through the website is not in scope of this project. Developers should consider the design being able to be used on mobile devices.

Requirements

## Legend

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Actor | Defines who the requirement pertains to |
| User | Client-side actor that will access the web application |
| Dev | Server-side actor that develops the web application |
| Client | Actions taken by the client or stakeholders of the application |
| U#.# | Requirement ID pertaining to Actors of type “User” |
| D#.# | Requirement ID pertaining to Actors of type “Dev” |

## Product Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| U1.0 | Affordable Housing Search landing page | User |
| U1.1 |  |  |
| U1.2 |  |  |
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| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| U2.0 | Housing Filters | User |
| U2.1 |  |  |
| U2.2 |  |  |
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| **Requirement ID** | **Requirement** | **Actor** |
| U3.0 | Housing Details | User |
| U3.1 |  |  |
| U3.2 |  |  |
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| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| U4.0 | **Google Maps** | User |
| U4.1 | Nearby Routes | User |
| U4.11 | Location of the house/apartment is set by default |  |
| U4.111 | User can enter a work or destination of choice | User |
| U4.112 | Map provides route options with time and miles | User |
| U4.1121 | Car | User |
| U4.1122 | Bus | User |
| U4.1123 | Bike | User |
| U4.1124 | Walk | User |
| U4.1125 | Ride share | User |
| U4.113 | Calculate Route Costs | User |
| U4.1131 | Once the route option is selected the route cost can be calculated |  |
| U4.2 | The map on Housing Details page a radio button is available to select: | User |
| U4.21 | Nearby Schools | User |
| U4.22 | Nearby Shopping | User |
| U4.23 | Nearby Restaurants | User |

# 

# Technical Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| D1.0 | Affordable Housing Search landing page | Dev |
| D1.1 |  |  |
| D1.2 |  |  |
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| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| D2.0 | Housing Filters | Dev |
| D2.1 |  |  |
| D2.2 |  |  |
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| --- | --- | --- |
| **Requirement ID** | **Requirement** | **Actor** |
| D3.0 | Housing Details | Dev |
| D3.1 |  |  |
| D3.2 |  |  |
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| --- | --- | --- | --- |
| **Requirement ID** | **Ref #** | **Requirement** | **Actor** |
| D4.0 |  | Retrieve a Google Maps API key | Dev |
|  |  | Client to set up Google API account for paid services | Client |
| D4.1 |  | Reference Google Maps API documentation | Dev |
| D4.2 | U4.21-U4.23 | Download [Places API](https://console.cloud.google.com/apis/library/places-backend.googleapis.com?project=api-project-659912771265&supportedpurview=project) | Dev |
| D4.3 |  | Download [Maps JavaScript API](https://console.cloud.google.com/apis/library/maps-backend.googleapis.com?project=api-project-659912771265&supportedpurview=project) | Dev |
| D4.4 | U4.1121- U4.1125 | Download [Directions API](https://console.cloud.google.com/apis/library/directions-backend.googleapis.com?project=api-project-659912771265&supportedpurview=project) |  |
| D4.5 | U4.113 | Download [Distance Matrix API](https://console.cloud.google.com/apis/library/distance-matrix-backend.googleapis.com?project=api-project-659912771265&supportedpurview=project) |  |
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# Technical Design

## Implementation

## Testing

Communications Plan

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| --- | --- |
| Communications Plan | |
| **Project:** Energy Efficient Apartment Search | Start Date: 5/9/2022 |
| **Project Managers:**  Joanna Smith  Gary Johnston  Natalie Ayala  Octavian Carteleanu  Devante McFarlane | Estimated Completion Date: |
| **Methods of Communications:** | Valencia email, Discord for chat discussions, ClickUp for Project Management, Zoom |
| Objectives | |
| Establish report with team members |  |
| Meet with professor for project requirements |  |
| Develop Technical Requirements Document |  |
| Develop database |  |
| Design web application |  |
| Develop web application |  |
| Test web application |  |
| Revise web application |  |
| Deploy web application |  |
|  |  |
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# Expected Outcomes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type | Date | Assignees | Method | Time | Purpose |
| Project Requirements Meeting | 5/18/2022 | Project Team  Project Stakeholders | Zoom | 1 hour | To discuss with the stakeholders what the requirements of the project are. |
| Scrum Meeting | Weekly on  Mondays at 7:00 pm | Project Team | Discord or Zoom | 30 min | Discuss progress, establish and assign tasks during next sprint. |
| Informal Progress Updates | Asynchronous | Project Team | Discord | N/A | Discuss and development milestones, issues, complications, etc. |
| Planning Documentation Submission | 5/23/2022 | Joanna Smith | Canvas Submission |  | Establish project tasks, set deadlines and assign team members |
| Prototype Submission | 6/5/2022 |  | Canvas Submission |  |  |
| Test Plan Submission | 6/12/2022 |  | Canvas Submission |  |  |
| Technical Documentation Submission | 6/5/2022 |  | Canvas Submission |  |  |
| Beta Version Submission | 6/26/2022 |  |  |  |  |
| Beta Test and Revision Report Submission | 7/4/2022 |  | Canvas Submission |  |  |
| User Documentation |  |  | Canvas Submission |  |  |
| Developer Documentation | 7/17/2022 |  |  |  |  |
|  |  |  |  |  |  |

Project Plan

Graphical user interface

Description automatically generated

Graphical user interface, application

Description automatically generated