**Abstract:**   
Title: Virtual Property Walk-Through: Enhancing Real Estate tours with VR

Our projects aim to restructure the real Estate industry by offering Virtual property walk through using Virtual reality. This project provides a remote tour of the property to the user, the user can virtually visit and explore the property, this saves time and travel cost for the user, the users can explore properties from the comfort of their own house. Virtual reality makes the users feel like they are physically present within each space of the property. User will wear headsets and navigate through detail 3D representations of properties; this 3D representation allows the users to investigate every corner of the properties. We would like to add interactive features like communicating with agents regarding properties’ dimensions, furniture placement and other features. Our project will be accessible to both buyers and sellers.

**Technical Implementation:**

We will build the virtual environments using VR design platform, which includes Unity and Unreal engine. We will use 3D model to present accurate and detail representation of the properties and 3D model helps in providing realistic lightings and high-quality textures. To provide controls for navigation We will design user interface within the VR environment, incorporating menus, which will allow users to interact with various options, settings, and features, it is used for 3D representation of the properties. Our plan is to implement VR-friendly controls, imposing motion controllers for users’ interaction, which provides smooth transitions between different areas of the property. We want to add some customizations such as change of furniture and choosing colours. We aim to integrate my project into existing real estate websites and platforms.  
  
 **Goals:**

1. To create working prototype for the project

* Creating 3D models of the properties
* Integrate all the models into virtual environment
* Implementation of navigation tools for users

1. Creating User Experience that simulates property tour, and makes user to explore the different properties.
2. To create github repo to save our work

**Contingency plans:**

1. If the project is easier than expected, we would like to enhance the user experience, and the graphics quality.
2. If your project will fail if XYZ doesn't work/ or we face any challenge

* We will try to troubleshoot the problem that we are facing and try to rectify it.
* Try considering reaccessing our priorities with professors permission and try to achieve that priorities.

**Timeline:**

| **Work to be completed** | **Deadline** |
| --- | --- |
| **Planning(includes identifying exact resources needed for accomplishing project, Getting those resources ready)** | **Feb 25, 2024** |
| **Finding some buildings online to use** | **Feb 28, 2024** |
| **Creating 3D properties for that properties** | **Mar 5, 2024** |
| **Integrating these 3D models into virtual environment** | **Mar 10, 2024** |
| **Implementing navigation tools** | **Mar 15, 2024** |
| **Miscellaneous** | **Mar 20, 2024** |

**Resources:**

Development tools: Unity or Unreal Engine

Github: to save work

Blender, Autodesk Maya, or SketchUp: to create/import 3D models

Documentation: Google docs, GitHub

Version Control: Github  
  
**Responsibilities (if more than one person working on project):**

1. Priyanka will focus on finding properties online and 3D modeling.
2. Dharan will handle VR interactions and user interface development.
3. Kiran will help the team to achieve goals on time, maintaining documentation

Do you have a git repository set up?

Ans: Yes, we have( <https://github.com/kvadlapa/VirtualPropertyWalk/>)

Do you have a regular time you plan to meet to talk about the project and work on it?

Ans: We will try to find the time each week that works best for all three.

**References:  
Beyond the Hype: Unveiling the Marginal Benefits of 3D Virtual Tours in Real Estate by Mengxia Zhang and Isamar Troncoso**