Evaluation Assignment 2 – User Goal Document

App Description:

Built environments must be assessed to ensure their safety. The ceiling trusses of buildings such as sports arenas must be inspected in specifically. Typically, this has been accomplished by having scissor lifts and repeatedly going up and down to cover the entire area. This is obviously inefficient and time-consuming. This work of surveying massive buildings has been simplified especially with modern drone technology.

Flying drones, on the other hand, is a challenging task. It is highly susceptible to human mistake, and crashes are common while flying in challenging or unfamiliar locations. Furthermore, because there is little or no GPS signal in inside conditions, flights must be conducted manually. Given the difficulty of flying in new interior spaces, it would be good to give some means of training and familiarizing rookie pilots with the space before flying on-site. That is, to acquaint and train people to duplicate or conduct a flight path comparable to one taken by an expert drone pilot during an inspection.

The App's aim is to give a way to visualize drone flights that are utilized in interior building inspections or other situations where autonomous GPS-driven flights aren't possible to operate. Drone pilots will be able to better understand the flight paths of expert pilots who have completed simulated checks within the space due to this visualization. The ability to communicate spatial flight route data intuitively inside a 3D space is required to provide this feature.

User Types:

There can be of different user types. Primary users will be the **Drone Pilots** who are to conduct inspections within an indoor space.

Secondary users can also be there. They can be **Construction Managers**, **Building Inspectors**, **Structural Engineers or Experienced Pilots** training up the current path to the Primary Users.

User	Type	Age	Expertise with Tech	Goal
Drone Pilots	Primary	25-40	Professional	Conduct Inspection
Structural Engineers	Secondary	30-50	Professional	Inspect Structure
Construction Managers	Secondary	35-50	Amateur	Inspect Construction in Depth
Building Inspectors	Secondary	30-40	Amateur	Inspect the Building
Experienced Pilots	Secondary	35-50	Expert	Train Drone Pilots with their Expertise

User Goal Table:

A user goal table can be generated as below based on the requirement of the App.

Users	Goal
Drone Pilots	Navigate 3D Environment of a Building Space through the App to analyze the flight path, position, and challenges to operate the flight.
Experienced Pilots	Analyze the App Data and Train Drone Pilots with specific trouble points as well as with warning signs to avoid collision.
Structural Engineers	With the Drone Flight Data, Engineers aim is to check and inspect the structural foundation, cracks if there is any, doors, windows, and vents position, examine support beams etc.
Construction Managers	Drone flights can help Construction managers to manage the projects with respect to the budget and timing of that with the help of regular inspection.
Building Inspectors	Building Inspectors will ensure that codes, laws, and regulations established on a specific structure through the Drone Flight Data with the help of App.