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| **VR Project Design Document** | |  | | --- | | 4|7|2023  **20193015 – Mohab Khalid** | |

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| **1**  **App Info** |  | |  |  | | --- | --- | | Tentative Title: | Virtual Travel | | |
|  | |  |  | | --- | --- | |  | Education & Training | | |  |  | | --- | --- | |  | Mental Health & Fitness | |
| |  |  | | --- | --- | | **✓** | Travel & Discovery | | |  |  | | --- | --- | |  | Media & Entertainment | |
| |  |  | | --- | --- | |  | Productivity & Collaboration | | |  |  | | --- | --- | |  | Gaming | |
| |  |  | | --- | --- | |  | Art & Creativity | | |  |  | | --- | --- | |  | Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

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| --- | --- | --- | --- |
| **2**  **Pitch** |  | To goal is for users to [learn | review ]:   |  | | --- | | Discover new place | |
|  | This will be especially [educational | memorable ] in VR b/c:   |  | | --- | | opportunity to explore and discover new places from the comfort of your own home. You can visit famous landmarks, historical sites, natural wonders, and cultural destinations around the world without the need for physical travel. | |
|  | At a high level, during the app, users will:   |  | | --- | | Users will navigate through virtual environments representing different places and locations. They can move around, look in different directions, and interact with objects or elements within the virtual space. | |
|  | This experience will be targeted at devices with:   |  |  |  |  | | --- | --- | --- | --- | | [3 ] | degrees of freedom,  giving users control over the | [rotation | movement ] | of their head & controllers. | |

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| **3**  **Basics** |  | The app will take place in:   |  | | --- | | Your home | | and the user will get around the scene with:   |  |  | | --- | --- | | [teleport] | movement. | |
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|  | The user will be able to grab:   |  | | --- | | * Apple | | There [will not] be sockets:   |  | | --- | |  | |

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| **4**  **Events & Interactions** |  | There will be haptic / audio feedback when:   |  | | --- | |  | | | There will also be 3D sound from:   |  | | --- | |  | |
|  |  | | |
|  | If the user is holding:   |  |  |  | | --- | --- | --- | |  | and presses the trigger, |  | |  | and presses the trigger, |  | |  | and presses the trigger, |  | |  | | Suggestions: a UI change, a sound/video plays, a particle plays, an object is spawned or destroyed. | | | |
|  |  | | |
|  | By default, the left hand will have a:   |  |  | | --- | --- | | [Direct | Ray] | interactor. | | and the right hand will have a:   |  |  | | --- | --- | | [Direct | Ray] | interactor. | | |
|  | And you [will | will not] be able to toggle on a [Direct | Ray] interactor using the [thumbstick | button]. | | |
|  |  | | |
|  | The main menu will be located:   |  | | --- | |  | | | and from the main menu, the user will be able to:   |  | | --- | |  | |
|  | [Optional] There will be additional UI elements for:   |  | | --- | |  | | | |

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| **5**  **Optimization & Publishing** |  | To make the user experience more accessible / comfortable:   |  | | --- | |  | | | |
|  | Given that this app is targeting the [headset model], target metrics are:   |  |  |  | | --- | --- | --- | | Frames per second: | >= \_\_\_\_\_\_ | FPS | | Milliseconds per frame: | < \_\_\_\_\_\_ | ms (= 1,000 / FPS) | | Triangles per frame: | \_\_\_\_\_\_ - \_\_\_\_\_\_ | tris | | Draw calls per frame: | \_\_\_\_\_\_ - \_\_\_\_\_\_ | batches | | | |
|  |  | Lighting strategy: | | |
|  |  | |  |  | | --- | --- | |  | All baked | | |  |  | | --- | --- | | **✓** | Mostly baked with some mixed | | |  |  | | --- | --- | |  | All real-time | |
|  |  | Light probes [will | will not] also be used for more realistic mixed lighting. | | |

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| **6**  **Other features**  **(Optional)** |  | |  | | --- | |  | |

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| **7**  **Sketch**  **(Optional)** |  |  |

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| **8**  **Timeline**  **(Optional)** |  | |  |  |  | | --- | --- | --- | |  | Milestone | Date | | 1 |  |  | | 2 |  |  | | 3 |  |  | | 4 |  |  | | 5 |  |  | |