

**STUDENT INDUSTRIAL INTERNSHIP PROGRAMME LOGBOOK**

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**Matric No: 24657**

**Programme: Information System (IS)**

**Place of Training: Murdoch University, Australia**

**Period of Training: 7 months**

**Project Title: Neuromender and Stroke Rehabilitation System**

**SIP LOGBOOK REPORT**

**LOG BOOK WEEK NO: 3-4**

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| **WEEK NO** | **DATE** | **BRIEF DESCRIPTION OF DAILY ACTIVITIES** |
| **3** | **16/09/2019** | * To read on Snapping Theory Research |
| **17/09/2019** | * To meeting with supervisors to update the progress of project. * To do object snapping using VRTK. |
| **18/09/2019** | * To continue doing object snapping. |
| **19/09/2019** |  |
| **20/09/2019** |  |
| **4** | **21/09/2019** |  |
| **22/09/2019** |  |
| **23/09/2019** |  |
| **24/09/2019** |  |
| **25/09/2019** |  |

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| Logbook Weekly Evaluation by HOST COMPANY SUPERVISOR | | | | | |
| I**nstruction to Host Company Supervisor**  Please refer to the student’s to assess his/her performance.  Please award the scores based on the range below: | | | | | |
| **Student’s Score** | **Beginning**  **(<2.0)** | **Developing**  **(2.0 to <3.25)** | **Accomplished**  **(Rare)**  **(3.25 to <4.0)** | **Exemplary**  **(Exceptionally Rare)**  **(4.0 to 5.0)** | **Score** |
| Initiative & Creativity | Had little observable drive and did not have new ideas | Some observable drive and some new ideas | Mostly self-starter and sometimes sought new challenges and offered new ideas | Always a self-starter and consistently sought new challenge and offered new creative ideas | **/5** |
| Task Accomplishment & Commitment | Partially accomplished given task despite full supervision | Accomplished given task but with full supervision | Accomplished given task but with some supervision | Accomplished given task with very minimum supervision | **/5** |
| Attendance & Punctuality | Frequently absent and always late | Sometimes absent and sometimes late | Never absent and almost always on time | Never absent and always on time | **/5** |
| Attitude & Self Control | Unable to demonstrate positive attitude and hardly maintained self-control under pressure | Occasionally demonstrated positive attitude and occasionally maintained self-control under pressure | Sometimes demonstrated positive attitude and maintained self-control under pressure | Consistently demonstrated positive attitude and consistently maintained self-control under pressure | **/5** |
| Total Score | | | | | /20 |
| **Comments:** | | | | | |
| **Host Company Supervisor’s Signature & stamp:** | | | | | |
| **Name & Designation:** | | | | | |
| **Date:** | | | | | |

*(make copies if necessary)*

**DETAIL REPORT WEEK NO: 3**

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| **Objective(s) of the activities :**   * **To read on Snapping Theory Research** |
| **Contents :**   * **Since we delegated our task, I was responsible to find on how to do Object Snapping in Unity.** * **Based on what I have watched the tutorial video, mostly the tutorials show the snapping 2D object only.** * **There is an asset that allow snapping for real-time but it must be purchased in order to use it.** * **The snapping also available in VRTK, but the version was not compatible with current version of SteamVR or sometimes with the Unity Version.** |
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**DETAIL REPORT WEEK NO: 3**

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| **Objective(s) of the activities :**   * **Meeting with supervisors to update the progress of Module 3** * **To find tutorial on how to do Object Snapping in Unity.** |
| **Contents :**   * **We had a meeting with our supervisors to show what we had done so far with Module 3.** * **Based on the short meet up, the players can see each other in the environment and the player can see the action of another player.** * **Our supervisors has requested to put face on the player and put teleportation to the environment.** * **For the User Interface (UI) scene, the button ‘Next’ in the scene is not working.** * **The problem was that, it cannot change the instruction in the VR environment using controller.** |
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**DETAIL REPORT WEEK NO: 3**

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| **Objective(s) of the activities :**   * **To understand the concept of object snapping in Unity before implementing to the Module 3.** * **To do object snapping using Virtual Reality Tool Kit.** |
| **Contents :**   * **I tried to do snap drop zones by referring to a tutorial video on YouTube. However, the problem is that, the tutorial was using VRTK to do the object snapping.** * **Snap Drop Zone is designated area where the players can place an object near it illuminating a shape to indicate that the players can place it there.** * **By watching the tutorial video, I learnt on how to do Object Snapping but using VRTK. The steps was quite simple and easy to follow.** * **The hardest part is when there is no reference for us to do Object Snapping using Steam VR and as for now, we are still searching for the way to do it.** * **Based on the tutorial video, there are several snap types:**   **1) Kinematic: When the players snap the object into that drop zone, it will turn off the rigid body kinematics on the actual object so it won’t be affected by physics anymore.**  **2) Joint: We need to apply a joint to the snap drop zone as well and then it will use the joint on there and it’ll attach the rigid body from the object to the snap drop zone with the joint that we have provided.**   * **3) Parenting: We make the object a child of the snap drop zone.** * **Problem:**   **1) The cube is supposed to be pick up using controller and then drag it to the snap zone area. However, the cube itself will go to the snap drop zone without using controller.** |
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**DETAIL REPORT WEEK NO: 3**

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| **Objective(s) of the activities :**   * **To continue read on the documentation about Object Snapping.** |
| **Contents :**   * **I read the documentation that was given by my supervisor, Dr. Fairuz Shiratuddin regarding the Object Snapping in Unity.** * **From the documentation, there were several object snap modes which are snap to terrain, snap to object, snap to 3D grid and snap to 2D grid and terrain.** * **For our project, we focused on the snap to object. In this snap mode it is possible to snap other objects to this level object. Once this snap mode is activated additional properties (snap points, root snap point, built in UI) appear in the inspector. Each entry of the snap points array defines the root location of the snap point and the objects which can be snapped to this point. The local transformation in the space of the point can be set for each snap object individually** * **However, the steps in the documentation was not supported in Unity and we still need to find other way to do Object Snapping.** * **I’ve found a tutorial from internet that shows on how to do Object Snapping using Steam VR.** * **However, it was difficult to follow because the version that was using from the tutorial is old version.** |
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**DETAIL REPORT WEEK NO: 4**

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| **Objective(s) of the activities :**   * **To understand the concept of Socket Inventory System in Steam VR.** |
| **Contents :**   * **I tried to do Socket Inventory System by following a tutorial video on YouTube.** * **Socket Inventory System is an alternative for object snapping where the object will be snapped into specific zone.** * **The basic idea of this tutorial is that, if the players are holding an object and they pull the trigger near one of the sockets, the players need to interact with that socket and place the object from the player’s hand into it.** * **There are two parts in this tutorial:**  1. **Picking up and dropping the object** 2. **Interact with that object once the players were holding it.**     **Picture above shows on the socket that will act as the object snap zone.**   * **I have created the Input Manager script to check for any action on the trigger as well as for the touchpad.** * **After that, I dragged the Input Manager into both controllers of game object.** * **The function of socket is to provide the basic functionality when the players want to attach an object to either their hand or to their belt so there are two functions for attaching and detaching as well as another one for getting whatever object we currently have stored within this socket.** * **Challenges:**  1. **The tutorial may skipped several steps so it was hard for me to identify the steps.** 2. **When dragging the Input Manager script into the controllers, there is no Steam VR input action provided.**  * **I tried to configure and fix the error under the Input Manager script.** |
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**DETAIL REPORT WEEK NO: 4**

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| **Objective(s) of the activities :**   * **To continue doing the Socket Inventory System.** |
| **Contents :**   * **Before continuing with the next tutorial, I fixed the error under Input Manager Script.** * **Solution: I deleted the Steam VR and reimport because there was an error with the Steam VR input.** * **After fixing the error, now I can put the Steam VR input action under both controllers’ game object.** * **When I proceeded with the tutorial 3, 4 and 5, there was a problem where the slot is not working where the object cannot attached to the slot.** * **I still try to identify the error in the slot by checking the script.** |
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**DETAIL REPORT WEEK NO: 4**

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| **Objective(s) of the activities :**   * **To finish doing the Socket Inventory System tutorial.** |
| **Contents :**   * **I have finished following the tutorial video for Socket Inventory System.** * **I also fixed the error that has happened under slot. The reason that error has happened because there is a wrong spelling in the coding.** * **After finishing doing the Socket Inventory System in Steam VR, we tried to do the object snapping into our Module 3 environment by using the concept of Socket Inventory System.**     **Picture above shows the slot that acts like drop snap zone.** |
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**DETAIL REPORT WEEK NO: 4**

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| **Objective(s) of the activities :**   * **To continue doing object snapping to Module 3 environment.** |
| **Contents :**   * **We identified and did comparison the Socket Inventory System’s scripts that can be used in Module 3 environment for object snapping.** * **As we used the concept of Socket Inventory System, we have changed the environment a bit. We put a box to spawn the Real Adils and screws instead of the players pick up the objects on the table and snap it.**     **Challenges:**   * **When I tried to snap the screw into the Real Adils, the screw cannot snap into the holes because I already applied the rigid body for the whole object so the holes on the Real ADILS are included** |
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**DETAIL REPORT WEEK NO:4**

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| **Objective(s) of the activities :**   * **To continue with object snapping for Module 3** |
| **Contents :**   * **We already tried to make the object snapping on Real Adils. At first, the players need to click on the static box to get the Real Adils and then they need to snap to the Real Adils at the given area or in other names snap zone area.** * **Challenges:**  1. **To make the screw snap into the Real Adils holes. It is hard because rigid body has already applied to the whole of Real Adils object, so to make the hole on the Real Adils excluded rigid body seems impossible. However, we tried to find any other ways to make the screw snap into the holes.** 2. **All parts of Real Adils already applied rigid body. We need to find a solution on how to make the holes excluded from rigid body so that the players can snap the screw into the holes.** 3. **Since we decided to use object spawn on the objects before this, we planned to just arrange the objects on the table (original idea) and the players need to pick up the object and snap it.** |
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