**Game Development with Unity3d – Level 4- G11.**

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*Aim:*

* To design a point and click game for level 4 group 11 project 2016/17.
* To work to schedule and timeline as per assignment requirements.

*My Task:*

* Game programming, scripting and technical development.

*Software tools:*

* Unity 3d, Text editor, web browser, Git hub, Office 365.

*Scope:*

* to take design concepts, specifications and briefs and research, develop and build a “point and click game using Unity3d.

*Research/reference(s):*

* Unity 3d engine

UI COMPONENTS

1. [UI Canvas](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-canvas?playlist=17111)
2. [UI RectTransform](https://unity3d.com/learn/tutorials/modules/beginner/ui/rect-transform?playlist=17111)
3. [UI Button](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-button?playlist=17111)
4. [UI Image](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-image?playlist=17111)
5. [UI Text](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-text?playlist=17111)
6. [UI Events and Event Triggers](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-events-and-event-triggers?playlist=17111)
7. [UI Slider](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-slider?playlist=17111)
8. [UI Transitions](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-transitions?playlist=17111)
9. [UI ScrollRect](https://unity3d.com/learn/tutorials/modules/beginner/ui/ui-scroll-rect?playlist=17111)
10. [UI Scrollbar](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-scrollbar?playlist=17111)
11. [UI Mask](https://unity3d.com/learn/tutorials/topics/user-interface-ui/ui-mask?playlist=17111)

* Scripting api –



**SCRIPTING**

**Learn about programming from scratch, then progress to create detailed code for your projects.**

**BEGINNER GAMEPLAY SCRIPTING**

1. [Scripts as Behaviour Components](https://unity3d.com/learn/tutorials/modules/beginner/scripting/scripts-as-behaviour-components?playlist=17117)

2. [Variables and Functions](https://unity3d.com/learn/tutorials/topics/scripting/variables-and-functions?playlist=17117)

3. [Conventions and Syntax](https://unity3d.com/learn/tutorials/topics/scripting/conventions-and-syntax?playlist=17117)

4. [C# vs JS syntax](https://unity3d.com/learn/tutorials/topics/scripting/c-vs-js-syntax?playlist=17117)

5. [IF Statements](https://unity3d.com/learn/tutorials/topics/scripting/if-statements?playlist=17117)

6. [Loops](https://unity3d.com/learn/tutorials/topics/scripting/loops?playlist=17117)

7. [Scope and Access Modifiers](https://unity3d.com/learn/tutorials/topics/scripting/scope-and-access-modifiers?playlist=17117)

8. [Awake and Start](https://unity3d.com/learn/tutorials/topics/scripting/awake-and-start?playlist=17117)

9. [Update and FixedUpdate](https://unity3d.com/learn/tutorials/topics/scripting/update-and-fixedupdate?playlist=17117)

10. [Vector Maths](https://unity3d.com/learn/tutorials/topics/scripting/vector-maths?playlist=17117)

11. [Enabling and Disabling Components](https://unity3d.com/learn/tutorials/topics/scripting/enabling-and-disabling-components?playlist=17117)

12. [Activating GameObjects](https://unity3d.com/learn/tutorials/topics/scripting/activating-gameobjects?playlist=17117)

13. [Translate and Rotate](https://unity3d.com/learn/tutorials/topics/scripting/translate-and-rotate?playlist=17117)

14. [Look At](https://unity3d.com/learn/tutorials/topics/scripting/look?playlist=17117)

15. [Linear Interpolation](https://unity3d.com/learn/tutorials/topics/scripting/linear-interpolation?playlist=17117)

16. [Destroy](https://unity3d.com/learn/tutorials/topics/scripting/destroy?playlist=17117)

17. [GetButton and GetKey](https://unity3d.com/learn/tutorials/topics/scripting/getbutton-and-getkey?playlist=17117)

18. [GetAxis](https://unity3d.com/learn/tutorials/topics/scripting/getaxis?playlist=17117)

19. [OnMouseDown](https://unity3d.com/learn/tutorials/topics/scripting/onmousedown?playlist=17117)

20. [GetComponent](https://unity3d.com/learn/tutorials/topics/scripting/getcomponent?playlist=17117)

21. [Delta Time](https://unity3d.com/learn/tutorials/topics/scripting/delta-time?playlist=17117)

22. [Data Types](https://unity3d.com/learn/tutorials/topics/scripting/data-types?playlist=17117)

23. [Classes](https://unity3d.com/learn/tutorials/topics/scripting/classes?playlist=17117)

24. [Instantiate](https://unity3d.com/learn/tutorials/topics/scripting/instantiate?playlist=17117)

25. [Arrays](https://unity3d.com/learn/tutorials/topics/scripting/arrays?playlist=17117)

26. [Invoke](https://unity3d.com/learn/tutorials/topics/scripting/invoke?playlist=17117)

27. [Enumerations](https://unity3d.com/learn/tutorials/topics/scripting/enumerations?playlist=17117)

28. [Switch Statements](https://unity3d.com/learn/tutorials/topics/scripting/switch-statements?playlist=17117)

**INTERMEDIATE GAMEPLAY SCRIPTING**

1. [Properties](https://unity3d.com/learn/tutorials/topics/scripting/properties?playlist=17117)

2. [Ternary Operator](https://unity3d.com/learn/tutorials/topics/scripting/ternary-operator?playlist=17117)

3. [Statics](https://unity3d.com/learn/tutorials/topics/scripting/statics?playlist=17117)

4. [Method Overloading](https://unity3d.com/learn/tutorials/topics/scripting/method-overloading?playlist=17117)

5. [Generics](https://unity3d.com/learn/tutorials/topics/scripting/generics?playlist=17117)

6. [Inheritance](https://unity3d.com/learn/tutorials/topics/scripting/inheritance?playlist=17117)

7. [Polymorphism](https://unity3d.com/learn/tutorials/topics/scripting/polymorphism?playlist=17117)

8. [Member Hiding](https://unity3d.com/learn/tutorials/topics/scripting/member-hiding?playlist=17117)

9. [Overriding](https://unity3d.com/learn/tutorials/topics/scripting/overriding?playlist=17117)

10. [Interfaces](https://unity3d.com/learn/tutorials/topics/scripting/interfaces?playlist=17117)

11. [Extension Methods](https://unity3d.com/learn/tutorials/topics/scripting/extension-methods?playlist=17117)

12. [Namespaces](https://unity3d.com/learn/tutorials/topics/scripting/namespaces?playlist=17117)

13. [Lists and Dictionaries](https://unity3d.com/learn/tutorials/modules/intermediate/scripting/lists-and-dictionaries?playlist=17117)

14. [Coroutines](https://unity3d.com/learn/tutorials/topics/scripting/coroutines?playlist=17117)

15. [Quaternions](https://unity3d.com/learn/tutorials/topics/scripting/quaternions?playlist=17117)

16. [Delegates](https://unity3d.com/learn/tutorials/topics/scripting/delegates?playlist=17117)

17. [Attributes](https://unity3d.com/learn/tutorials/topics/scripting/attributes?playlist=17117)

18. [Events](https://unity3d.com/learn/tutorials/topics/scripting/events?playlist=17117)

**EDITOR SCRIPTING**

1. [Building a Custom Inspector](https://unity3d.com/learn/tutorials/topics/interface-essentials/building-custom-inspector?playlist=17117)

2. [The DrawDefaultInspector Function](https://unity3d.com/learn/tutorials/topics/interface-essentials/drawdefaultinspector-function?playlist=17117)

3. [Adding Buttons to a Custom Inspector](https://unity3d.com/learn/tutorials/topics/interface-essentials/adding-buttons-custom-inspector?playlist=17117)

**COMMUNITY POSTS**

1. [MonoDevelop's Debugger](https://unity3d.com/learn/tutorials/topics/scripting/monodevelops-debugger?playlist=17117)

2. [Good Coding Practices in Unity](https://unity3d.com/learn/tutorials/modules/intermediate/scripting/coding-practices?playlist=17117)

3. [Unity Editor Extensions – Menu Items](https://unity3d.com/learn/tutorials/topics/interface-essentials/unity-editor-extensions-menu-items?playlist=17117)

4. [Creating Meshes](https://unity3d.com/learn/tutorials/projects/procedural-cave-generation-tutorial/creating-meshes?playlist=17117)

**PROJECT ARCHITECTURE**

1. [AssetBundles and the AssetBundle Manager](https://unity3d.com/learn/tutorials/topics/scripting/assetbundles-and-assetbundle-manager?playlist=17117)

2. [Mastering Unity Project Folder Structure - Version Control Systems](https://unity3d.com/learn/tutorials/topics/production/mastering-unity-project-folder-structure-version-control-systems?playlist=17117)

**GETTING STARTED WITH UNITY DEVELOPMENT USING VISUAL STUDIO**

1. [Installing Tools for Unity Development](https://unity3d.com/learn/tutorials/topics/scripting/installing-tools-unity-development?playlist=17117)

2. [Building your first Unity Game with Visual Studio](https://unity3d.com/learn/tutorials/topics/scripting/building-your-first-unity-game-visual-studio?playlist=17117)

3. [Editing Unity games in Visual Studio](https://unity3d.com/learn/tutorials/topics/scripting/editing-unity-games-visual-studio?playlist=17117)

4. [Debugging Unity games in Visual Studio](https://unity3d.com/learn/tutorials/topics/scripting/debugging-unity-games-visual-studio?playlist=17117)

5. [Graphics debugging Unity games in Visual Studio](https://unity3d.com/learn/tutorials/topics/scripting/graphics-debugging-unity-games-visual-studio?playlist=17117)

6. [Taking Unity games to Universal Windows Platform](https://unity3d.com/learn/tutorials/topics/scripting/taking-unity-games-universal-windows-platform?playlist=17117)

7. [Testing Unity games on Android in Visual Studio](https://unity3d.com/learn/tutorials/topics/scripting/testing-unity-games-android-visual-studio?playlist=17117)

**LIVE SESSIONS ON SCRIPTING**

1. [Scripting Primer and Q&A](https://unity3d.com/learn/tutorials/topics/scripting/scripting-primer-and-qa?playlist=17117)

2. [Scripting Primer and Q&A - Continued](https://unity3d.com/learn/tutorials/topics/scripting/scripting-primer-and-qa-continued?playlist=17117)

3. [Scripting Primer and Q&A - Continued (Again)](https://unity3d.com/learn/tutorials/topics/scripting/scripting-primer-and-qa-continued-again?playlist=17117)

4. [Persistence - Saving and Loading Data](https://unity3d.com/learn/tutorials/topics/scripting/persistence-saving-and-loading-data?playlist=17117)

5. [Object Pooling](https://unity3d.com/learn/tutorials/topics/scripting/object-pooling?playlist=17117)

6. [Introduction to Scriptable Objects](https://unity3d.com/learn/tutorials/modules/beginner/live-training-archive/scriptable-objects?playlist=17117)

7. [How to communicate between Scripts and GameObjects](https://unity3d.com/learn/tutorials/topics/scripting/how-communicate-between-scripts-and-gameobjects?playlist=17117)

8. [Coding in Unity for the Absolute Beginner](https://unity3d.com/learn/tutorials/topics/scripting/coding-unity-absolute-beginner?playlist=17117)

9. [Sound Effects & Scripting](https://unity3d.com/learn/tutorials/topics/audio/sound-effects-scripting?playlist=17117)

10. [Editor Scripting Intro](https://unity3d.com/learn/tutorials/topics/scripting/editor-scripting-intro?playlist=17117)

11. [Writing Plugins](https://unity3d.com/learn/tutorials/topics/scripting/writing-plugins?playlist=17117)

12. [Property Drawers & Custom Inspectors](https://unity3d.com/learn/tutorials/topics/interface-essentials/property-drawers-custom-inspectors?playlist=17117)

13. [Events: Creating a simple messaging system](https://unity3d.com/learn/tutorials/topics/scripting/events-creating-simple-messaging-system?playlist=17117)

14. [Using Interfaces to Make a State Machine for AI](https://unity3d.com/learn/tutorials/topics/scripting/using-interfaces-make-state-machine-ai?playlist=17117)

* Design process – story, characters , terrain etc.
* Development process – protoype/ testing.
* Documentation / Git hub

*Development/Build Process:*

* Create a root directory to store project file
* Create assets and game objects to link to unity engine
* Link objects to hierarchy
* Create scripts and components for each object properties
* Test behaviour and report results
* Save file to main copy (git hub master)

*Testing*

* To create a prototype and final product.