

FG22GPMFTSKE - Unity Games Development Assignment

- For the grade G:
 - Inheriting Character
 - Make a character that can move and jump in Unity (graphics should be 3D, movement can be on a 2D or 3D plane). Have the functionality to jump and move in a script called Character.
 - Create 3 sub-classes (children) to Character, example below (you may be creative and use your own):
 - ElfCharacter
 - DwarfCharacter
 - HumanCharacter
 - Let them all override the jump and move functionality and make them different in your own creative way (it can be everything from different move/jump patterns to just adjusting values). Choose 1 of the above sub-classes to serve the character object in the scene.
 - Give each sub-class a unique ability (function/method). The ability should either do something visually or give a unique Debug.Log at the very least.
 - Create a separate script that handles character input. That script will handle jump, move and unique ability input. This "character input script" will then let the "character script" perform according action.
 - Now make sure you can switch out the character script with the other 2 and that their unique jump/move/ability works as intended and differs from the others.
 - Mobile optimization
 - The hand-in contains an .apk file of the project.
 - The UI and move functionality for the characters can be used on a mobile device.
 - Save/load at least one variable, using a system of your choice. This needs to work on Android devices too.
- For the grade VG:
 - Inheriting Character
 - Make it possible to switch between character scripts runtime (From Elf to Dwarf for example) from the character input handler script (preferably with a button).
 - Create a list of equipment for the character. Make at least two different types of equipment where one modifies the character's move and the other the character's jump AND move values. This can for example be done using interfaces.
 - Assign a random equipment to the character at start and print it out in the debug log to know which equipment the character got.

- Make it possible to switch equipment with a button push. The character's jump and move need to be affected by the switch.
 - **Mobile optimization**
 - The above, such as switching equipment, works in the mobile version.
 - There are at least 20 3D objects in the scene at any given time, and at least 2 light sources. There are no obvious lag spikes, and the game runs smoothly on an average smartphone (will be tested on a Samsung Galaxy Note 10 Plus).
- **Handing in your project**
 - Create a GitHub repository and add the following:
 - .apk file
 - Assets (contains all your project files)
 - Packages (contains a manifest of packages used)
 - Project settings (contains your project settings)
 - Remember to make the Git repo Public!
 - Share with Anna Högberg Jenelius on Teams.
 - Hand-in deadline is on 27 January at 17:00. Late submissions cannot get VG.