BlueGravityStudios

Interview Programming Task

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State Machine:

To control variables and methods, I built a StateMachineSystem for the player, this state machine gets methods from a PlayerState class and then applies them in the correspondent sub state class, which inherits from PlayerState, and get references from the PlayerManager class.

Dialogue System

For the Dialogue System, I implemented Ink, a plugin for unity that helps with narrative scripting, giving the possibility to have narrative variables (local and global). The way it works is that objects have a .Json file attached to them that references an .Ink file which contains the dialogue, variables and tags. When a player is near this object and presses the interact button, it activates the dialogue panel which loads this Json file, reads it and displays it.

Change Appearance System

For this, I design a Modular Spritesheet system in which the players head and body is displayed on screen through a mesh renderer with a material. This material's texture2D is an empty sprite which, according to the selected equipment, changes the indicated pixels from empty to the ones from the sample for that area.

Inventory & Shop Systems

For the Inventory and Shop Systems, I created an ItemClass, which has all the attributes that an item needs to be identified and instantiated accordingly. Both the PlayerInventoryClass and the Shop Stock Class have lists of Items defined in them. The shop has all the items instantiated at the beginning, mean while the player inventory only has the initial items. When a player buys an item (if has enough gold), that item is added to the inventory list, when it sells and inventory item, it is removed from that list (and the gold is added), in both cases, an event is called which updates the list, and displays on the UI only the items that the player currently has.

Art Assets

Most of the art assets were edited by me in Photoshop, this includes the icons, buttons, characters sprite sheets, menu back ground. The music its from a previous project in which a musician helped me. I always try to be tidy with arts assets inside the project.

Game Logic

The game logic is simple, you can't win, but you can try on all the equipment set up for the player. For this you will have to talk to the Merchant and buy the equipment, to get the gold, you can talk to the people in the city, and you can sell items.