

Midwinter Design Implementation Test

 The following is a template for a “take home” technical design test with a focus on Blueprint scripting and mission design.

Read through the evaluation requirements below. Then complete the test and upload your submission.
This test should take you less than half a day to finish.

Blueprint Visual Scripting Test Overview

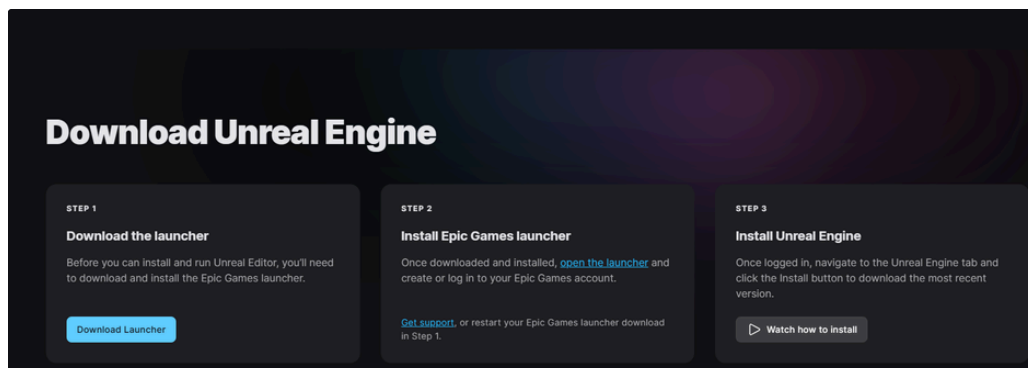
Solving scripting problems on a whiteboard doesn't emulate the full problem space of technical design work. This evaluation is intended to showcase your thought process and hands-on skills. It will help us answer the question: how do you approach creating gameplay in Unreal with Blueprint visual scripting?

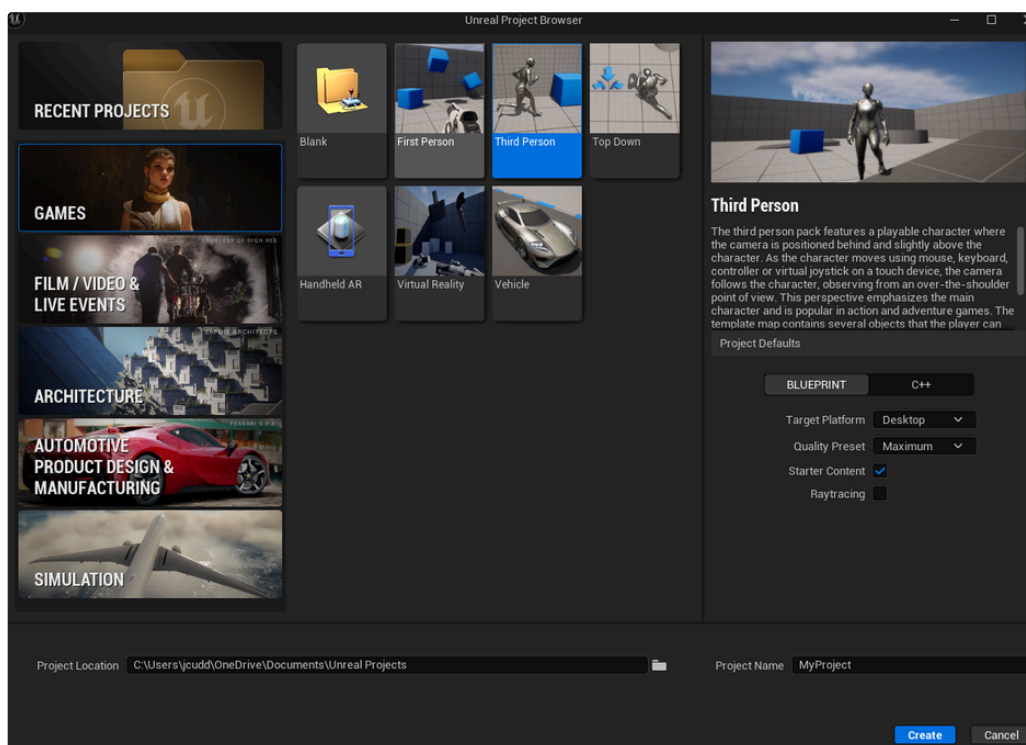
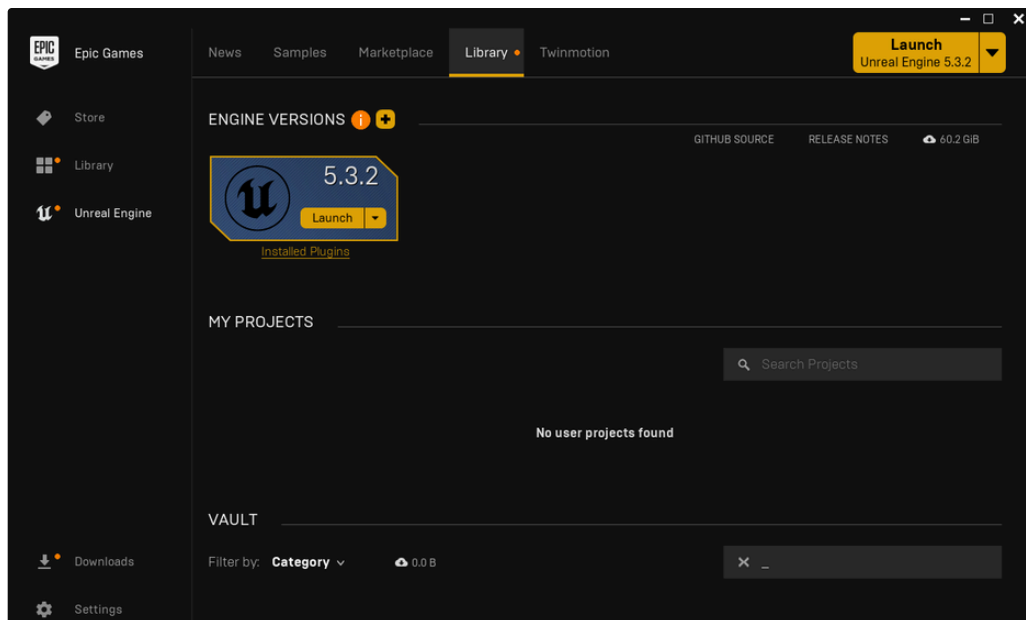
Goals

- Download, open, and edit an Unreal Engine template project
- Add new, bug-free blueprint logic adhering to scripting best practices
- Comment your blueprint(s)
- DON'T: copy and paste script or 1-1 example content from the internet

Setup

1. Download and install the [Epic Games Launcher](#)
2. Open Epic Games Launcher, create an account if needed
3. Navigate to the 'Library' tab
4. Click “Add Versions” and select Unreal Engine 5.3 to install
5. Launch Unreal 5.3 after installing
6. Create a new project using the **Third Person** pack
7. Follow the setup prompts until the editor opens to a new level viewport





Test Instructions

For this test, design and implement a new mission using the Unreal Engine 5 Third Person pack as a template.

Use only blueprint and starter content in engine, no new C++ code may be added, no additional plugins may be enabled. Do not add new art assets other than the Starter Content package.

Do not use the Gameplay Ability System, GAS is out of the scope of this test. (You will get a chance to tell us about your GAS work in interviews that follow.)

Although consideration of the user experience is expected and appreciated, player-facing messaging can be simple. Debug text printed on screen or in the world, or use of worldspace text renderers is fully acceptable as a representation of a player's HUD with objectives and mission related widgets.

- **Test Mission - Delivery**

- Make a new mission that requires players to:
 - Find and 'interact' with an object to 'collect' a valuable mission item
 - Reach a destination and stay there for 10 seconds to 'deposit' the mission item

Evaluation Criteria

- Player can trigger an interaction by pressing an input while looking at or standing near an object
 - Some messaging directs the player to the interactable object
 - Some interaction affordance is presented to the player
 - Some activation success messaging triggers after input is pressed
- Win condition is functional, mission is 'complete' after player stands in specified area for 10s
 - Some messaging directs the player to the deposit zone
 - Some success messaging triggers after the player stands in the zone for 10s
- Blueprint logic is clean and clear
 - Comments explain design intent and enable a viewer to follow the logic easily
 - Flow is sensible and adheres to basic best practices
 - Note: we know there are many ways to solve a problem in blueprint, we are not looking for just one specific solution

Submitting Your Test

Please upload in a zipped folder:

- Your entire project folder
 - include your name in the file and/or folder's name
 - You will be e-mailed a link to the upload site separately.

Resources

Unreal Engine documentation can be found [here](#).