

Challenge 1

Setting up the Environment

Exam Objectives Covered

- Select the appropriate properties, scripts, and components of GameObjects for required tasks
- Explain how to use prefabs in a scene

Challenge Overview: Creating the Main Level for your game

Welcome to the next section of the exam prep course! In this session, you'll be working on building a game environment from the ground up, inspired by the classic game SkiFree. This first challenge will focus on creating the main level using the provided assets and setting up the core elements to bring your scene to life.

Step 1: Create and Set Up the Scene

Using the provided Game Design Document (GDD), your first task is to create a new scene in Unity that captures the perspective and general layout detailed in the document.

Instructions:

1. Create a New Scene:
 - Start by creating a new scene in your Unity project.
2. Recreate the Layout:
 - Refer to the GDD to understand the intended perspective and layout.
 - Use the provided prefab assets to build out the level, ensuring it aligns with the design specifications.

Step 2: Level Design

Practice your level design skills by laying out a thoughtful and playable level.

Instructions:

1. Lay Out Prefab Assets:

- Thoughtfully place the provided prefab assets in your scene to create a playable environment.
- Ensure the level design promotes good gameplay flow and a fun player experience.

Step 3: Set Up the Third Person Camera

Using Cinemachine, create a third-person camera that targets the Player prefab.

Instructions:

1. Create the Camera:
 - Set up a Cinemachine Virtual Camera.
 - Configure the camera to follow and look at the Player prefab, achieving a smooth third-person perspective.

Step 4: Basic Lighting and Skybox Setup

Set up basic lighting and add a skybox to the scene to create the right atmosphere.

Instructions:

1. Add the Skybox:
 - Import the provided Tundra skybox material.
 - Apply it to your scene to create an immersive winter environment.
2. Add and Modify Lights:
 - Place and adjust lighting sources to illuminate your scene effectively.
 - Modify light settings for ambient light, shadows, and intensity as required.
3. Bake the Lighting:
 - Once your light setup is done, bake the lighting to optimize performance and achieve the desired visual results.

Step 5: Organize the Scene

Keep your scene organized in the Hierarchy window to maintain a clean and manageable project.

Instructions:

1. Organize Objects:

- Group related objects and create meaningful names for objects and groups.
- Use empty GameObjects as parent containers to keep the hierarchy tidy.

Once you've completed these steps, your main level should be well on its way to becoming a fully functional and visually enticing part of your SkiFree-inspired game.

Good luck and have fun with your level design! This exercise will help you develop crucial skills in scene creation, camera setup, and environmental design. Happy developing!