Intro to Unity

Assessment 2 GDD Template

2024

Your Name

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Changelog

Version	Date	Changes
1.0.0		Initial Setup
2.0.0	1st February 2025	Protocol Update

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Overview

Project Description

For this assessment, you will need to organise, design, plan and document the creation of a 3D, First-Person Dungeon Crawler Prototype. You will need to work in teams of minimum 3 people to complete this task.

There will be weekly meetings held in-class according to the scrum standard.

Game Genre

3D, First-Person Dungeon-Crawler

Target Platforms

The game is intended to be played on PC with a mouse and keyboard using the Unity game engine.

Target audience

The game is intended to be played by gamers who love exploration, speedrunning, or 15+

References

- Etrian Odyssey HD: Beyond the village of Etria lies a mysterious forest with a colossal crack opening to a puzzling labyrinth. Lead a team of explorers into the dungeon with the promise of riches, fame, and adventure!
- Moonlighter: Moonlighter is an Action RPG with rogue-lite elements that demonstrates two sides of the coin – revealing everyday routines of Will, an adventurous shopkeeper that secretly dreams of becoming a hero.

Project Pipeline (Protocol)

The pipeline to be followed for this project adheres to regular industry standards for game developers.

A 'pipeline' is defined as the sequencing of tasks throughout a project across multiple disciplines to achieve milestones by a certain date in the most efficient way.

The pipeline used by is:

1. Discuss the project requirements with your team
2. Confirm communication software, task management software and version control software
3. Begin pre-production for the project
    - Game Description
    - Software
    - Timeline
    - Art Style
    - Asset List
    - File formats
    - Naming Conventions
    - Concept Art / Top-Down Map
    - Color Pallet
4. Set up the Greybox Dungeon inside Unity (**Alpha**)
    - Create a prefab for each asset with the greybox model within
    - Place all prefabs in their desired place according to the top-down map
    - Set up basic lighting
    - Set up basic materials
    - Set up basic collision
    - Import the FPS Player Controller
5. Take screenshots and update project Art Bible
6. Begin Production on the Final Assets (**Beta**)
    - Import Final 3D Assets

- Import Audio files
- Create VFX
- Replace Prefabs with Final Models
- Create & Attach Post-Processing effects
- Add any additional Lighting
- Create animations for the necessary assets
- Take screenshots of final environment & recessary assets
- Create a build of the game

7. Test & Receive Feedback from Peers
8. Revise Build/Project According to Feedback
9. Create a Final Build of the Game (**Gold**)
    - Reflect on final build of the game in your art bible
    - Finalise screenshots & post-mortem review.
10. Zip all project files and individual assets into a 'Submission' folder for Moodle.
    - Maya Project Files
    - Unity Project Files
    - Art Bible Files
    - Game Design Document

Communications Policy

Primary communication platforms:

- Microsoft Teams, Discord, Email (Outlook) – video meetings, file sharing, brainstorming.
- Trello – Used for project management and task assignment.
- In-person scrum meetings. – weekly, max 15mins.

Meeting protocols:

- Everyone should arrive to the meeting on time, meetings will start within 5mins of office hours.
- Weekly in-person meetings that follow an agenda and follow the scrum meeting structure.
- Meeting ettiquite – be an active participant, show up on time and avoid multi-tasking while others are talking.
- Note taking – update the file sharing platform with meeting minutes that outline what was talked about.

Documentation:

- Use file management software - google drive, dropbox or github for file sharing and version control.
- All team members should have access to the trello and file management software.
- Update the trello, GDD and team art bible once a week after the scrum meeting.
- Encourage team members to post updates into trello while outside of office hours, but within established working times.

Communication Style and Tone:

- Clear and concise – promote direct communication to avoid misunderstandings.
- Respectful collaboration – foster a culture of empathy and inclusivity by encouraging team members to listen and maintain a positive tone.
- Feedback process – deliver constructive feedback regularly, encouraging team members to grow and reflect on their own personal development.

Managing conflict resolution:

- Approach the team leader to mediate any significant issues that can't be resolved internally within the team.

Updates and Notifications:

- Prioritize tasks at the beginning of the week – determine which assets will be worked on in sequence by order of functionality to decoration.
- Minimize digital clutter – avoid overloading team members with irrelevant updates and excessive notifications. Keep all communication on task.

Team morale and well-being:

- Set expectations for availability – for example: once a week in-office and between 5pm and 8pm Monday to Wednesdays.

Specifications

Technical Specifications

Appropriate 3D model file formats:

- .ma
- .fbx

Appropriate 2D texture file formats:

- .jpg
- .png
- .tif

Appropriate Audio file formats:

- .wav
- .mp3

Screen size – must fit the aspect ratio of 1920x1080 (16:9).

Software specifications for 3D modelling, concepting & texturing.

The developer should use Autodesk Maya for 3D modelling. Your PC should have following specifications listed on the official site.

(Long URL: https://knowledge.autodesk.com/support/maya/learn-explore/caas/sfdcarticles/sfdcarticles/System-requirements-for-Autodesk-Maya-2022.html)

The developer should use Photoshop for developing illustrations. Your PC should have following specifications listed on the official site.

(Long URL: https://helpx.adobe.com/photoshop/system-requirements.html)

File Storage Policy & Procedure

You will need to submit all files included in the project or created by any of the team members inside their own projects.

AutoDesk Maya

How you store your files for this project is important. This allows the team to remain organised and share files with efficiency.

You will need to create a folder structure to keep your files in. The appropriate folder structure for 3D modelling is as follows:

"YourName_IntroToUnity_DungeonProject"

Within this folder, you should have the following folders auto-generated by Maya through the 'project window', 'set project' sequence.

- Assets
- Autosave
- Cache
- Clips
- Data
- Images (any images generated by maya will end up here)
- Movies
- renderData
- sceneAssembly
- scenes (any scenes saved by maya will be saved to here)
- scripts (any scripts used in the project should be stored here)
- sound (any sound files used in the project should be stored here)
- sourceimages (any textures used in the project should be stored here)
- TimeEditor

Throughout the project, all files should be stored in their respective folders.

This is the project folder structure you should zip and send to your team leader for feedback at each stage.

Unity Project Folder

How you store your files for this project is important. This allows the team to remain organised and share files with efficiency.

You will need to create a folder structure within your Unity project in order to keep all of your files clean and organised.

The project should be using the Universal Render Pipeline (URP) 3D template.

The project should be named using an appropriate naming convention relevant to the assessment.

Within the project folder, you should have the following folders auto-generated by Unity:

- Assets
- Packages
- Scenes
- Settings

Within the project folder, you will need to organise your files into the following folders:

- Materials
- Prefabs
- Textures
- Audio
- VFX
- Models
- Builds
- Scripts
- Anims

Quality Assurance Standards

Every project needs quality assurance standards that all artists adhere to throughout the project.

Maya Assets / 3D Models

This project has the following requirements:

- Each asset should be free from errors and non-manifold geometry
- Each asset should be free from N-Gons, Double Faces & Z-fighting
- History should be deleted & the scene should be cleaned on all models in Maya before exporting.

Unity Project

- The following naming conventions (or similar) should be applied to all assets within the project:
    - Models = GEO_PropName_
    - Textures = T_PropName_
    - Materials = M_
    - Particle Effects = VFX_
    - Prefabs = PropName_prefab
    - Audio Files = SFX_
    - Animations = PropName_anim
    - Scripts = ScriptName.cs

Asset List

During this project, you will be asked to create the following list of assets required for this project:

- Stone Pillar
- Floor Tile (1m x 1m)
- Straight Wall (1m x 1m)
- Concave Wall (1m x 1m x 1m)
- Convex Wall (1m x 1m x 1m)
- Grand Entrance Door
- Transition Door (Animated) (Audio)
- Torch (Particle Effect)
- Key x3 (Animated) (One red, one blue, one green)
- Spike Trap (Animated)
- Treasure Chest (Animated) (Audio)
- Prismatic Jewel (Animated) (Particle Effect)
- Enemy: Spider
- Enemy: Skeleton

2D

Textures

- Stone Pillar diffuse texture (1024 x 1024px resolution)
- Floor Tile diffuse texture (1024 x 1024px resolution)
- Straight Wall diffuse texture (1024 x 1024px resolution)

Effects

Post-Processing

- Post-Processing Effect #1
- Post-Processing Effect #2

Particle Effects

- Particle Effect #1
- Particle Effect #2

Lights

- Light #1
- Light #2
- Light #3

Audio Files

- Audio Sound #1
- Audio Sound #2