1. The criteria for the under 40 score in Table 1 are applied to all three set exercises.

Table 1: Criteria for the under-40 score

|  |  |
| --- | --- |
| **Criteria** | **Mark** |
| Software compiles | 10 |
| Code explanation clear in videos | 10 |
| Basic scene set - just plain background | 10 |
| At least one model, health bar or UI design | 10 |
| **NO PLAGIARISM** | |

2. There are three set exercises, 3D modelling, programming and game start screen, which will take account for 35%, 35% and 30% of the final score in the submission of the set exercise.

Table 2. Criteria for 3D modelling exercise (35%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **40-50** | **50-60** | **60-70** | **70-80** | **Mark** |
| Modelling | | | | |
| A minimal box with a lid is provided | Detail geometry is added for the crate  Model is a discernible art style | Ground geometry is provided under the crate | At least 3 background scene geometry objects are provided | 4 |
| Texturing | | | | |
| A premade or standard texture is provided  Appropriate lighting is provided in the scene | At least one custom texture is provided for the crate model | Custom textures are provided for the ground and scene geometry | Add a custom skybox texture | 4 |
| Animation | | | | |
| A linear transition is provided for crate opening (3) | Apply easing to the opening animation | Apply an animated light to the scene as part of the opening animation | Apply a subtle animation to the camera as part of the opening animation (screen shake or similar effect) | 2 |

Table 3. Criteria for programming exercise (35%)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **40-50** | | **50-60** | | **60-70** | | **70-80** | **Mark** | | |
| Component | | | | | | | | |
| Unity Slider component is controlled by custom code | Add health and take damage events are implemented | | The component has a test code activated by the keyboard  Clear code structure with comments in the code explaining the processes involved | | Application of good OOP practice in the code base - sensible names for methods and properties using camel case where appropriate, clear comments for all classes and methods | | | 5 |
| Animation | | | | | | | | |
| Slider value changes from custom code | Custom code includes a simple transition over time to add health and take damage | | The transition uses the animation curve to add health and take damage | | Add health and take damage have different transition styles (bounce or squash for example) | | | 2.5 |
| Custom art | | | | | | | | |
| A custom set of colours for the foreground and background parts of the slider | Custom art for the foreground and background of the slider | | Overlay art for the slider (frame or overlay) | | Custom icon for the health bar in a corner of the overlay | | | 2.5 |

Table 4. Criteria for game start screen exercise (30%)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **40-50** | | **50-60** | | **60-70** | | **70-80** | **Mark** |
| Background and UI art | | | | | | | |
| is present and working | Custom UI art is provided for the button  A background image is used | | A small scene using 2D or 3D assets | | A short looping silent video is used in the background – loop from 10 seconds to 1 minute OR a small, animated scene using 2D or 3D assets | | 7 |
| Music & Sound FX | | | | | | | |
| Sound is provided for the button | Background music is provided | | The background music loops and the button sound activates every time the button is pressed | | All sound levels are appropriate, button sound is clearly audible above the music. | | 3 |

3. Based on satisfying the requirements in Tables 1-4, the criteria in Table 5 will be applied for over 80 score evaluations in all three set exercises.

Table 5. Criteria for the over-80 score

|  |  |
| --- | --- |
| **Criteria** | **Mark** |
| Advanced game development optimization techniques (can implement ideas from papers of cutting-edge research from the last 5 years) | 10 |
| Advanced game development research ideas implemented (can implement ideas from papers of cutting-edge research from last 5 years) | 10 |