# Advanced Digital Games programming

**Programming Assignment**

**Brief**

You are to create a Free Runner style game in SDL. You are required to first write up a Technical design document in which you will:

* Describe the type of Game you wish to make.
* List out the key challenges you will face
* Give a class diagram of your game (with functions)

This document should be 600-1000 words

*Note: Feel free to include a short story description but mainly focus on the technical aspect of the game.*

**Requested Feature List**

Your game should implement the following features.

- Scrolling background

- Collision & State Management (Alive, Dead etc.)

- Animation (Spriteframe coming from xml file)

- Data driven design (some form of UI element being designated from a file)

- Scene Switching (Main menu to in-Game)

- Human interface controls

- In-Game HUD (with clickable pause functionality)

- 1 Unique Game mechanic (No two people in the class can use the same mechanic this could range from: rocket boosters, teleportation, invincibility etc.)

**Breakdown of marks**

Pass - Basic Free Runner game in SDL & Completed Technical Design Document

45-55 - one or two of the features Implemented

55-65 - three or four of the features implemented

65-75 - four or five of the features implemented

75-85 - five or six of the features implemented

85-95 - all features implemented and exemplary code structure and comments

95-100 - exemplary code structure and technical design document