**Guidelines for Developing Games as Final Year Project (FA’19 and onwards)**

In order to improve Game Development Projects, Final Year Project (FYP) committee has revised game development rules for the students of FYP so that students can develop Computer/Android games as their FYP. Our goal is to suggest policies, methods, and features that can lead our FYP students to grab high rank positions in the gaming industry.

FYP supervisor will make sure that following guidelines must be followed by their students during development process.

**Game Development Tracks:**

A) Mobile Phones (Android, iOS, Windows Phone, and Tizen)

B) PC / Video Game Consoles (Xbox, Play Station etc.)

**Requirements for Game Development:**

1. **Clone games are not acceptable**

FYP Games must be clearly differentiated from the competitors with respect to innovation. An FYP that lacks differentiation from competitor and innovation will be considered clone and will be rejected during proposal review process.

1. **Story-based games will be accepted**

There should be a storyline in a game that consists of a series of events that extends from start to completion (victory condition). The story told through gameplay depends on the topic and victory condition, plus the hurdles which the player must overcome to reach victory.

1. **High** **Production Values**
	1. **Assets Building and Modeling Tool (**Maya, Assembla, Substance, 3DStudioMax etc.**)**

Conditions: Only natural environment assets and few characters can be used in game engine through asset store or loyalty free websites. All other assets for instance buildings, weapons, vehicles, characters and animations must be designed and created in different tools.

* 1. **Game Development Tool** (Unity 3D, Unreal Engine, Game-Maker Studio, Godot etc.)

Conditions: Following features must be available in FYP

* Game Physics
* Interactivity
* Rendering
* Scripting
* Collision detection
* Artificial intelligence, and other features
	1. **Graphics, Sound & Controls**

Conditions:Must be attractive, enticing, and inspiring and able to convey information quickly with minimum player effort. FYP committee will check the following requirements.

* Control Setup (Visual settings, sound settings, keyboard keys changing options, and others)
* Player customization (weapons/cars/tools selection, Player Profile, and others)
* Storyboard setup (game stages, mission objective, missions completed, missions remaining, and others) Sound & Visual Effect (Walk, Run, Punch, Fire and others)
* Visual Info during play mood (Map Navigator, Health/Lifeline, Time, Score and others)
* Game Save, Resume and Exit option

1. **Provide Multiple Gaming Experiences**

It is mandatory to include a variety of game types and adjustable game parameters that combine to create a range of different gaming experiences and should meet the following requirements.

* Multiplayer death matches (e.g. PUBG,COD etc.)
* Single player campaigns within multiplayer game (e.g. Left for Dead, BattleField etc.)
* Random map games (e.g. Age of Empires, Unexplored etc )
* Cooperative play games (e.g. Super Mario Galaxy, Lord of the Rings etc)
1. **Difficulty Levels**
	1. Minimum 5 stages including 1 demo stage
	2. Minimum 3 difficulty levels in each stage (Beginners, Average and Professional)
	3. Increase of opponent energy, updated weapons and increasing the enemy in each levels
	4. New environment in each stage
	5. New objectives at every next level
2. **Development tools and System Requirement**

Each group will manage their own resources (HW & SW) during development process.

1. **Game Intro / Teaser**

Each group must make a game teaser (introduction) using Blender, Adobe After Effects, and others for the purpose of game promotion in Open Hose Event, project exhibition and final project presentation.

1. **Execution Plan in FYP Proposal**

Students MUST present their execution plan/strategy that how they shall publish their game in gaming industry.

1. **Executable File**

Executable File (.exe) of each respective project in a build version with complete features will be checked on its respective platform (PC and Mobile).

**“FYP committee will check the following parameters at 12th week of 8th Semester”**

 **Important:**

Student MUST complete above mentioned requirements as per the following timeline

**A)** **14th week of 7th semester**

* Assets database
* Storyboard–Missions/Stage objectives and descriptions in interactive visual presentation (short animation, picture, or any other) at the start of each stage.
* Game Terrain/Maps and Sceneries–For at least 2 stages and their levels, all environment (terrain, maps) should be provided. –
* Software Requirements Specification (SRS) document–As already written in the FYP proposal submission form.

**B) 13th week of 8th semester**

Provide soft FYP report and complete game including the following on DVD.

* Game Teaser (15 – 20 seconds duration)
* Complete source file having all the functionalities as stated in the revised FYP proposal
* Setup file (Exactable File)

**\*\*\* End \*\*\***

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