A1: Analysis & Prototyping

Creating high quality animation for games is challenging and takes time, effort, and practice.

Complete the following tasks and deliverables:

1. **Choose:**
    - a mobile game from the list below that you haven't played before
        - Toon Blast
        - Royal Match
        - Cookie Jam: Match 3 Games
        - Disney Emoji Blitz
        - Plants vs Zombies: Heroes
2. **Play & Record:**
    - Your first gameplay giving your initial impressions of the gameplay, entertainment level, graphical quality, things you like, things you didn't like
    - **NOTE:** Play just the first level
    - **Deliverable 1:**
        - Video recording of initial impressions
3. **Explore:**
    - Play and record (with your impressions) a second play experience of you exploring all parts of the menu, tutorial, and gameplay of a single level but this time pay attention very deeply to the animation
    - **Deliverable 2:**
        - Video recording of exploring gameplay/animation
4. **Analyze:**
    - From a gameplay recording, isolate ALL dynamic elements present in the menu
    - For each element,
        - Identify how these elements implement/use the principles of animation to create interest
    - **Deliverable 3:**
        - Video of each dynamic element isolated and discussion of how they implement/use the principles of animation
5. **Primitive Prototype:**
    - Using primitives only (i.e. squares, triangles, lines, points, cubes, circles, spheres, etc.) re-create the menu animations in either:
        - Blender
            - Use Keyframes, graph editor, easing
        - Unity
            - Use Timeline, clips, edit the easing graphs to control parameters
    - **Deliverable 4:**
        - Video demonstration of your prototype
        - Video comparison with the original side-by-side.

        - Video discussion
            - What is missing, what is different, what needs improvement in terms of animation/movement, what didn't you know how to do, etc....
        - Project files of your Blender or unity prototype
6. **Prototype with Assets:**
    - Add visual interest and refine the animation/movement to improve your primitive prototype
    - Use existing assets from https://assetstore.unity.com/lists/infr-2310-challenge-1-gui-assets-3574047587430
    - **Deliverable 5:**
        - Video:
            - Demonstrating your prototype with assets
            - Comparison with the original side-by-side.
            - Comparison with the Primitive Prototype side-by-side
            - Discussion of how successful your prototype is in comparison to the original focusing on animation quality, what can still be improved.

NOTE:

In this challenge, you are expected to use the concepts presented in the lectures/labs/activities as initial stepping stones towards the completion of the assignment. It is expected that you go beyond and do some additional research on these concepts as needed to enhance and deepen the discussion.

Connection to Labs:

- Feel free to use the knowledge and code from the activities and labs YOU completed
- You must however go deeper and expand upon the systems developed.

TO SUBMIT:

- **GITHUB:**
  - Link to your github repository (REPO) with structure:
    - REPO/A1/
      - Prototype/
        - Blender/
          - If you did your prototype in blender, this folder should exist and contain your directory containing your the .blend files and assets
        - Unity/
          - If you did your prototype in blender, this folder should exist and contain your entire Unity project with assets
      - Videos/
        - Video deliverable MP4's as specified above
          - Deliverable1.mp4
          - Deliverable2.mp4
          - Deliverable3.mp4
          - Deliverable4.mp4
          - Deliverable5.mp4
- **Youtube (Required):**
  - Upload each of your videos to Youtube (separately) and set:
    - **Visibility:** Unlisted
    - **Title:** Assignment 1 - DeliverableXX
    - **Description:**
      - Include a short description of the video that includes the names of each student in the group for this assignment.
  - Create an unlisted Playlist of these videos called "INFR 2310: F25 - Assignment 1"
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- **Canvas:**
  - On canvas, make sure you submit the following 3 items:
    - Completed **INFO.PDF**
    - Link to your Github
    - Link to your Youtube Deliverable Playlist

NOTE:

- if I **cannot** access your *Github repository* or your *Youtube playlist* when I am grading them, you will receive a **ZERO** on the assignment.
- It is YOUR responsibility to ensure that the appropriate access permissions are set