CIS 350 – (Team) Project #1 – **See due date on Canvas under Assignments**

Your team's next big goal is to create a playable arcade-style mini-game with Unity and C# that you can test at the in-class playtesting scheduled for October 3rd. It does not need to be perfect or feature-complete, it needs to meet the main requirements for what counts as a playable mini-game (listed at the bottom of this document) by when you submit it with Project 2 on October 2nd.

As a team, you can choose any of the following as your team's design objective or theme:

- Continue your game design concept from Assignment 1. Decide specifically what real-world action you want to persuade players to do to make the world a better place and how you will persuade them to do it.
- A game for enjoyment based on or inspired by the theme shown in this video: https://www.youtube.com/watch?v=pUohwjq9RkA&feature=youtu.be&t=826
- A game for enjoyment based on or inspired by the theme shown in this video: https://www.youtube.com/watch?v=z2w9VIMDN5o
- An educational game that teaches math in a more visual or compelling way than just showing numbers. No question-and-answer quizzes are allowed, and nothing like a question-and-answer quiz is allowed anywhere in the game. One example to think about it how combat in the card game Magic: The Gathering requires players to use math to calculate damage even though players often do not notice they are doing math.

Steps to Complete for Project 1

1) Get into teams of 4-5 and pick a design objective or theme from the list above. Feel free to watch the videos above before you decide.

   Deliverable: write which objective or theme your team chose into your document you will submit.

2) **Intended Experience or Desired Outcomes:**
   Given your stated design objective or theme, what are the emotions you want players to feel when they play your game? Other than enjoyment and an optimal level of challenge, how do you want players to feel while playing your game?

   Get specific about how you want players to feel. If it helps, you can use metaphors, but then ask yourselves how you want that experience to make the player feel. Avoid broad terms or synonyms for enjoyment like "satisfied" or "rewarded". Avoid game mechanics, player actions, feedback, or other ways the game will provide the intended experience.

   If your design goal is an outcome other than an emotional experience, what is the desired impact on the thoughts, feelings, knowledge, beliefs, or behavior of players after they play your game?

Deliverable: a bullet-point list of about 3-7 specific emotions or feelings other than enjoyment or optimal challenge you want players to feel when they play your game.

If your design goal goes beyond an emotional experience, instead list 3-7 specific player thoughts, feelings, knowledge, beliefs, or behavior other than enjoyment or optimal challenge that you want your game to have an impact on.

3) Brainstorm design ideas with your team. Use sketches to communicate your design ideas. This is a team project, so share your ideas freely among your team.

   Deliverable: None, but you will need to include an annotated sketch with your brief game design document

4) **Brief Game Design Document:** Use the attached template to create a Brief Game Design Document for your team's game. Only one game design document is needed for your whole team, but your whole team needs to participate in generating the design. Work together on it, do not just assign it to one person.

   You can use hand-drawn sketches to make the main illustration for your game design concept sketch, but annotate it with callouts in PowerPoint or Google Slides (see the instructions for how to do this in Assignment 1). Show the main thing players will be doing, what makes it challenging.

   If you are continuing your design objective from Assignment 1, you can use any team member's game design concept as a starting point. But the whole team needs to decide on it together and see if they need to add anything to make it more clear or complete.

   Deliverable: A single brief game design document

5) **Project Plan:** Again, your next big goal is to create a playable game by October 2nd.
   Create an overall plan for what needs to get done before that date. Create a list of bullet points in two categories: requirements and wishlist. Sort the requirements into a rough order to be completed and put deadlines on each requirements as a team for when they will be done. If you finish the requirements, you can work on the wishlist. These bullet points are features or parts of the game development to be done.

   You can break the requirements down into smaller chunks if that helps, but do **not** assign the work in the overall project plan. The project plan is where you plan as a team what work needs to be done to make the game playable enough to test before midterm playtesting. This is preliminary, so your team can decide to change it as the project evolves, but this is your big-picture plan.

   Deliverable: 2 lists of bullet points – requirements (with deadlines for each requirement) and wishlist. The deadlines must show each requirement is planned to be done on or before October 2nd.

6) **Sprint Planning:** Starting today, every Monday in class you will decide as a team how you want to breakdown the work required in the week until next Monday's class.

   Your team's plan needs to show what each team member is responsible for getting done each week. Aim for small enough chunks of work that they can be done within one week, and a fair distribution of the work. Do not get lost in the details, but be clear and specific enough that the team will know what counts as "done" for that chunk of work.

   Starting with your list of requirements, create a backlog or list of tasks that need to be done. Then each team member chooses the tasks they will take on for that week. Be sure you are also looking at your overall project plan while you do this.

   Even though each team member has their own chunk of work they are agreeing to finish, you will need to work together to help each other finish the work, teach each other, and guide each other as needed. All team projects have a shared grade, so each team member is responsible for the success of the project.

   Deliverable: For each of the first two weeks, a list of each team member's name followed by the tasks they have agreed to get done for that week. E.g. Sally: Build the underwater level. Mark: Get the feedback sound effects and script them to play when the player walks into the trigger. Be sure to create a list like this for each team member, at the beginning of each week.

7) **Sprint Retrospective:** Starting next Monday, reflect on how the previous week went. Each team member can briefly report how it went getting their part of the work done. If there were obstacles, discuss them and how they were overcome or could be overcome.

   Deliverable: You will only have one retrospective before this is due. Label the section Sprint Retrospective. List all team members followed by either "Done" or "Not done yet" and a brief explanation.

8) **Your mini-game prototype:** No matter how far along you are in development, I want to see your mini-game prototype. Create a GitHub repo, get the .gitignore file on Canvas, add the .gitignore file to your repo, and then add your Unity project folder to the repo.

   Deliverable: a URL web address linking to your project repository on GitHub. I will take off points if you do not use a .gitignore file. So please remember that step.

Submit the deliverables listed above as a **single** .docx or .pdf document on Canvas under Assignments -> Project 1 before it is due.

Main Requirements for a Playable Mini-Game (These requirements need to be met for Project 2, for the version due October 2nd – they do not need to be done by when Project 1 is due)

1. Tutorial elements that teach the player what controls to use (do **not** assume players know WASD=move or use the mouse to look, but use those standard controls if they make sense for your game)
2. A challenging goal is clearly communicated to the player
3. Achieving the goal of the game has a medium level of difficulty – neither too hard nor too easy (or the game has difficulty settings the player can choose or uses dynamic difficulty adjustment)
4. The game has success and failure conditions, meaning the player can win or lose each time they try.
5. Feedback about whether the player succeeded or failed each try is clearly communicated
6. There is a game loop, meaning the player has the ability to retry or reload the scene without closing and re-opening the game or pressing the Play button in the Unity Editor