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Game Programming Intern Application Evaluation Assignment

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1. In your opinion, what are the different development phases we should go through and What percentage of total development time should each phase take?

   Game development has 7 phases. The phases of game development are planning, pre-production, production, testing, pre-launch, launch, post-production.

   In the planning phase, we decided on a character, this game where and when it takes place, our game will be a 2D or 3D game and who is our target audience. In my opinion, this phase takes approximately %10 of total project time.

   In the pre-production phase, brainstorms how to give life to the many ideas laid out in the planning phase. In this phase we can do milestone scheduling. In my opinion, this phase takes approximately %5 of total project time.

   Most of the time, effort, and resources spent on developing video games are during the production phase. In this phase, game developers are starting coding. Our game artist and game designers are starting modeling and designing. This phase takes approximately %40 of total project time.

   In the test phase, every feature and mechanic in the game needs to be tested. I think this phase is one of the important phases because gamers hate bugs. Therefore, it is so important to fix the bugs. For this reason, in my opinion, this stage takes approximately %20 of total project time.

   The pre-launch phase is a stressful time for gaming studios. You wonder how the public will react to your first functional product. In my opinion, this stage takes approximately %5 of total project time.

   In the Launch phase, we can create a hierarchy for bugs to squash. This hierarchy will include “game-crashing” bugs near the top and minor bugs near the bottom. Finally, our game is ready for master release. In my opinion, this stage takes approximately %10 of total project time.

   In the post-production phase, we fix the bugs with the feedback of the players. And for the future we can start to design new DLC for our game. This phase depends on the popularity of our game so I cannot give a percentage of total development. (~%10)

2. We would like to get a glimpse of the gameplay of our new game at the earliest.

a. What are the first 5 mechanics/functionalities you should develop for this specific game so that we have a playable build as soon as possible?

   First, create a level for my game. Then, implement walking and jumping mechanics for my character. Create an enemy and add basic AI for the enemy. Then add a gun for my character. Damage mechanics for my character and enemy. Add a checkpoint system.

b. For each of the mechanics/functionalities you have listed in the previous section, what questions should the game designer have answered before you start coding?

Game designers have answered before I start coding, what type of video game are we producing? Will it be 2D or 3D? What is the type of characters? Who is our target audience? Which platform are we building this on?

4. We have decided our game will support **multiple handheld devices** (iPhone, Nintendo Switch etc). What this means, on some platforms players will control our game with touch input and with physical buttons and joysticks on others. Also, UI will slightly differ per platform (e.g. We have to put an on-screen pause button in touch-only builds but this is not necessary for builds that support physical controllers).

a. Describe your strategy to **decouple** UI/Input modules from the rest of the game so that platform specific code (input event detection, UI control etc) does not creep into gameplay modules (movement, jump, attack etc.).

For mobile games, I put a button on screen then I put an image on a button (right and left arrows for walking.). I add an event trigger component for the buttons. (Pointer Down and Pointer Up.). Pointer Down function starts when pressing button and pointer down does the player move. Pointer Up function starts when user release a button and pointer up stops the player.