Game Development Life Cycle

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Game development life cycle (GDLC)

Different from standard software development.

- Game consists of code and assets
- Game has more people working on it
Designers

Responsible for the look and feel of a game.

- subroles: scriptwriter, level designer, ...

Game Designer

What my mom thinks I do
What my friends think I do
What society thinks I do

What programmers think I do
What I think I do
What I actually do
Art and animation staff

Responsible for the visual look of the game.
Sound and music engineers

Produce the music and sound effects for the game.
- also integrate the soundtrack into the game programming
Programmers

Create the code for game engines.

- subroles - graphics programmer, AI programmer
Quality Assurance and testing

Make sure the game works and meets its specifications.
- should have broad of games to compare against
- not just finds bugs but provides information to fix them
- responsible for the delivery
Managers

Oversee the entire project.

- make sure everything is running well and project is in schedule
- many subroles: art lead, programming lead
- someone has to think about the business
The Phases

The GDLC typically consists of six phases shown below:
Initiation phase

The developer decides what kind of game they will make.
Pre-Production

Before the real production begins.
First pre-production:
- Game Design Document
- First prototype - shows gameplay (has to be fun)
Next cycles -> bug fixing and balancing
Production phase

The game assets and source code are made. The result of production is the playable game in form of:

- **Formal Details prototype** - a playable game, has win-lose rules, co-relations between features, runs well.
- **Refinement prototype** - most mature prototype which only needs more polishing. Should be feature complete and almost ready to ship.
Testing phase

Evaluation of game features, value, concept and design.

Task: which questions should the testing answer?
Testing phase

Evaluation of game features, value, concept and design.

Test report -> all the bugs, thing that should be omitted, included or changed.
The test result should decide whether to reiterate or advance to beta testing.

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Testing phase

Evaluation of game features, value, concept and design.

Some questions the testing should be answer:
1. Is the game still buggy?
2. Is it possible to get stuck in the game?
3. Is there any sign of exploits/glitch?
4. Is the game too easy/hard to beat?
5. Is there any feature missing?
6. Does the game run well on every platform?
Beta Phase

The beta test is testing cycle conducted by third party:

- publisher,
- potential buyer,
- game reviewer

Result should be a test report.

Decide whether the game is ready for shipping.
Release Phase

Work may seem to be done but it is not!

- Bugfixing, patching
- Aditions, special events
- Marketing
- Community management
Sub-phases

There are multiple sub-phases that help the game development in the long run.
Feasibility study

The feasibility study should be made before the development starts. Following areas should be analyzed:

- Requirements
- Pricing
- Technical, organizational, cultural, legal issues
- Schedule of the project
Character design

Players are identifying themselves through the characters they are playing.

- Interesting personality
- Visually distinguishable look
Vertical slice

Tiny portion of game with the final quality.

- standard for the final quality
- early promotional material
Layout design

Made for the entire game, all levels.

- Should represent various ways to play the game.
- Way to play the game before actually making it.
- Help to identify various gameplay problems.
Promotional demo

Way to attract the potential customers.

- Trial version
- Trailer
- More creative approach

Homework - project plan

Create a project plan for your first project:

- List of tasks (art, development and sound)
- Time estimations for each tasks
- Pert Chart
- Critical path marked on Pert Chart

Should be done in groups. Every member has to submit in CGLearn.