# Milestone 2

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## Github link to the game: Shoot forest, shoot!

## Part 1: Updated Game Document

**Changes to the initial game design:**

No changes since Milestone 1

**Evolution of the game:**

The biggest change to the game thus far has been the change in expectation of the animation and bullet mechanics. It was not initially as evident to me that it will take quite a bit of time to make the individual images to be incorporated in the animation cycle. The same can be said about the aiming mechanism for bullets. The angle of aim was achieved, but the velocity and trajectory are weird.

## Part 2: Updated Project Timeline

Since I am working alone on this project, all the work mentioned below is done or will be done entirely by me.

### Milestone 1:

Task 1: Player Controller:

- Inputs via keyboards are now working to control the player movement.
- Implemented Jump, but restrictions apply.
- Double jump mechanics implemented

Task 2: The floor and scene:

- The floor is implemented by a group of ‘box’ objects.
- Collision detection is implemented to prevent player from falling through the floor
- Design for other variations of the scene have been finished.

Task 3: Bullet mechanics:

- Bullet mechanics are not finished and will roll over to the next milestone.

### Milestone 2: April 12

Task 1: Bullet mechanics: Deadline: April 11

- Implemented shooting mechanism upon mouse click.
- Updated bullet functionality for simplification.

Task 2: Monster mechanics: Deadline: April 11

- Implemented monster movement
- Implemented monster attacks and game termination on contact.
- Postponed termination of monsters to final submission

Task 3: Make map sections 1 to 3: Deadline: April 11

- Implemented new map sections based on player position.
- These update once the player moves out of the screen edge. Giving a feeling of a larger world.

Task 4: Polish up jumping mechanics”

- Jumps are no longer clunky.
- Double jumps are adjusted to fit the game map more appropriately.

Final Game Submission: April 26

Completed and polished game
Completed Game Document game

# Part 3: Technical Challenges

The various kinds of monsters and obstacles have made the game logic pretty complicated. The biggest challenge is to implement all of these various components in an intelligent and efficient way. This might need some rethinking of class abstractions. Another challenge has been the aim adjustment of bullet trajectory. The angle was achievable, but the rest of the physics is pretty clunky and does not behave as intended. So I have simplified the project by just making bullets travel with a fixed velocity in a fixed direction. I will attempt to make this more complicated if time permits. The priority for now is to get the monsters and score count going.