

ADVANCED
PROGRAMMING

final project



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DESIGN & IMPLEMENTATION

- ◆ Login Page
- ◆ Main Page
- ◆ Choose Level
- ◆ Backyard
 - ◆ 1 row of grass - Level 1 & 2
 - ◆ 3 rows of grass - Level 3
 - ◆ 5 rows of grass - Level 4 & 5
- ◆ 5 types of plants
- ◆ 3 types of zombies
- ◆ Lawnmowers
- ◆ Shovel
- ◆ Progress bar

- ◆ OOP Concepts
- ◆ JavaFX
- ◆ Serialization/ Deserialization
- ◆ Multithreading
- ◆ Exception Handling
- ◆ Time Handler & Keyframes
- ◆ Interfaces & Abstract Classes
- ◆ Polymorphism
- ◆ Generic Programming
- ◆ Design Patterns
- ◆ Hash Maps



LOGIN PAGE

CHOOSE LEVEL

PLAY GAME

MAIN PAGE

NEW GAME

SAVE/QUIT



CONTRIBUTION

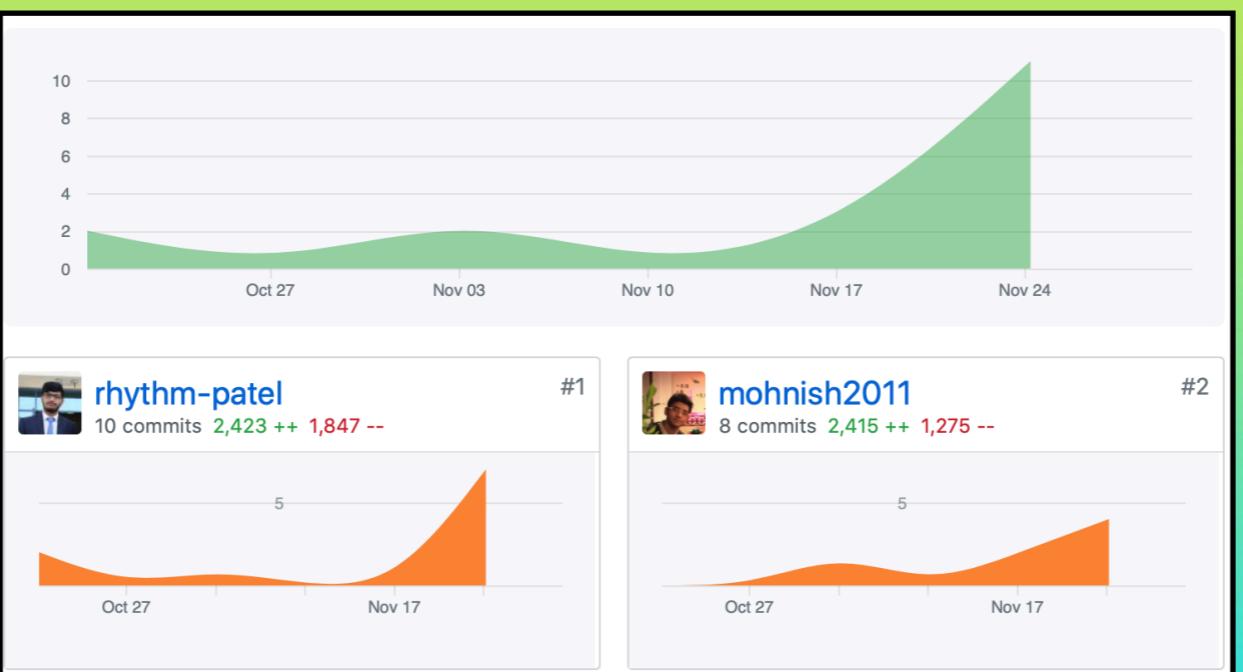
The project was achieved by a joint equal effort by both the participants. Both of us sat, discussed and worked together. The below points are major contributions and many parts overlap.

M O H N I S H

- ◆ Serialization
- ◆ Deserialization
- ◆ Collisions
- ◆ Multithreading
- ◆ Timers
- ◆ Graphics
- ◆ Lawnmowers
- ◆ Shovel
- ◆ Use Case
- ◆ Almanac

R H Y T H M

- ◆ Graphics
- ◆ Wave Algorithm
- ◆ Sound & Audio
- ◆ Menu
- ◆ Level
- ◆ Animations
- ◆ Linking
- ◆ Presentation
- ◆ Sun
- ◆ UML



BONUS

- ◆ Smooth Animation
- ◆ Sound Effects & Background Music
- ◆ Different number of grass rows for different levels
- ◆ In Game Pause Menu
- ◆ Shovel
- ◆ Proper Wave Algorithm of Zombies
- ◆ Game Almanac

