Augustus Shell
Arcade Game

Vampire Survivor Style Game Requirements
The Solution:
1. Must handle spawning enemies in waves
   a. Should have a variety of enemy types
   b. More enemies must spawn each wave
   c. Enemies must spawn off screen
   d. Must choose spawns randomly from a set of enemies
2. Must have ai behavior for enemies
   a. Enemies must track the player
   b. Enemies must have a variety of speeds
   c. Enemies must have varied patterns
   d. Certain enemies must have special attacks
3. Must have a variety of usable weapons and abilities
   a. Weapon should be chosen by player at start of play
   b. Abilities should be chosen by player upon level up
4. Must have the ability to save user progress
   a. Must have a pause menu
      i. Pause menu must have a save option
      ii. Pause menu must have an exit option
      iii. Main menu must have a continue option
      iv. Main menu must have a new option
5. Should have a good ui
   a. UI must show: score, weapons, abilities, relevant controls
6. Must have an options menu for desired UI choices and controls
   a. Options menu must be within pause menu
   b. Options menu must be on main menu
   c. Should have UI options page
   d. Should have a controls option page
7. Should have good controls
   a. Must defaultly control player movement with WASD
   b. Must defaultly control player aim with mouse position
   c. Menus should be accessible with esc key and/or on screen clickable button
8. Should be easy to add new enemies and weapons
   a. File system and types should be organized to allow easy addition of content
9. Must track player stats
   a. Must track score for current run
   b. Must track time for current run
   c. Must track wave number for current run
   d. Must record current run score and add to player overall score
   e. Must have an overall player level based on overall score
   f. Must have a currency based on stats

        i.   Must factor in time or wave number or score from runs to award currency.

    g. Must store player unlocked items such as cosmetics or new weapons

10. Must have a scaling enemy difficulty
    a. Enemies should have more health each wave
    b. Enemies should deal more damage each wave
    c. Harder enemy types should spawn more each wave
        i. Enemies should be organized by difficulty
11. Should have good hitboxes and clear hit indicators
    a. Player hitbox should be slightly smaller than appears
    b. Enemy damage taken hitbox should be slightly larger than appears
    c. Enemy damage dealt hitbox should be slightly smaller than appears
12. Must be able to handle a large number of enemies and projectiles at the same time
    a. Spawning algorithm should be optimized
    b. Enemy ai should be optimized
    c. Projectile movement should be optimized