|  |  |  |
| --- | --- | --- |
| Project Design Document | |  | | --- | | *mm/dd/yyyy*  Student Name | |

|  |  |  |  |
| --- | --- | --- | --- |
| Project Concept | | | |
| 1 **Player Control** |  | You control a   |  | | --- | | *Cube* | | in this   |  |  | | --- | --- | | *top Down* | game | |
|  | where   |  | | --- | | *user input type* | | makes the player   |  | | --- | | *moving left, right, up down and shooting.* | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2 **Basic**  **Gameplay** |  | During the game,   |  |  | | --- | --- | | *Enemies cubes* | appear | | from   |  | | --- | | *The player position* | |
|  | and the goal of the game is to   |  | | --- | | *kill all enemies in each wave.* | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 3 **Sound**  **& Effects** |  | There will be sound effects   |  | | --- | | *~~description of sound effects~~* | | and particle effects   |  | | --- | | *when bullets will collide with entities* | |
|  | [*optional*] There will also be   |  | | --- | | *~~description of any other expected special effects or animation in the project.~~* | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4 **Gameplay**  **Mechanics** |  | As the game progresses,   |  | | --- | | *More enemies appear,* | | making it   |  | | --- | | *More difficult* | |
|  | [*optional*] There will also be   |  | | --- | | *description of any other gameplay mechanic(s) and their effect on the game.* | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 5 **User**  **Interface** |  | The   |  | | --- | | *score* | | will   |  | | --- | | *increase* | | whenever   |  | | --- | | *An enemy is killed* | |
|  | At the start of the game, the title   |  |  | | --- | --- | | *“OOP"* | will appear | | | and the game will end when   |  | | --- | | *the boss is killed.* | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6 **Other Features** |  | |  | | --- | | *1.* *Inheritance*  *ActorController ->Enemy/Player*  *GameEvent->DestroyBulletEvent/EntityHitEvent/GameoverEvent/VictoryEvent*  *2.* *Polymorphism*  *ActorController.Shoot*  *ActorController.Update*  *ActorController.MovePlayer*  *3. Encapsulation*  *Actor profile*  *Events user data*  *4.Abstraction*  *ActorController.* *UpdateInputs*  *GameEvent.Execute* | |  | |

# 

# Project Timeline

|  |  |  |
| --- | --- | --- |
| Milestone | Description | Due |
| **#1** | |  | | --- | | * *Functional feature(s) by milestone #1* | | |  | | --- | | *mm/dd* | |
| **#2** | |  | | --- | | * *Functional feature(s) by milestone #2* | | |  | | --- | | *mm/dd* | |
| **#3** | |  | | --- | | * *Functional feature(s) by milestone #3* | | |  | | --- | | *mm/dd* | |
| **#4** | |  | | --- | | * *Functional feature(s) by milestone #4* | | |  | | --- | | *mm/dd* | |
| **#5** | |  | | --- | | * *Functional feature(s) by milestone #5* | | |  | | --- | | *mm/dd* | |
| **Backlog** | |  | | --- | | * *Feature on backlog - not a part of the minimum viable product* * *Feature on backlog - not a part of the minimum viable product* * *Feature on backlog - not a part of the minimum viable product* | | |  | | --- | | *mm/dd* | |

# Project Sketch