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| Project Design Document | |  | | --- | | *03/01/2020*  Federico Cassissa | |

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| Project Concept | | | |
| 1 **Player Control** |  | You control a   |  | | --- | | *Paddle* | | in this   |  |  | | --- | --- | | *3D top down* | game | |
|  | where   |  | | --- | | *Mouse movements* | | makes the player   |  | | --- | | *Move left and right* | |

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| 2 **Basic**  **Gameplay** |  | During the game,   |  |  | | --- | --- | | *Blocks and some enemies* | Are stacked | | |  | | --- | | *All around the scene* | |
|  | and the goal of the game is to   |  | | --- | | *Destroy all blocks without losing the three balls* | | |

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| 3 **Sound**  **& Effects** |  | There will be sound effects   |  | | --- | | *when the ball bounces on the paddle, when a block is destroyed, when powering up* | | and particle effects   |  | | --- | | *when a block is destroyed, when ball is powered up* | |
|  | [*optional*] There will also be   |  | | --- | | *Background music, sound effects when losing a life, losing/winning the game* | | |

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| 4 **Gameplay**  **Mechanics** |  | As the game progresses,   |  | | --- | | *Power ups may spawn from blocks* | | making it   |  | | --- | | *Easier or harder to complete the level* | |
|  | [*optional*] There will also be   |  | | --- | | *A timer that can be incremented with power ups. Scores at the top, with combos.* | | |

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| 5 **User**  **Interface** |  | The   |  | | --- | | *Ball count (3)* | | will   |  | | --- | | *decrease* | | whenever   |  | | --- | | *A ball is lost, the ball hits an enemy/negative power up* | |
|  | At the start of the game, the title   |  |  | | --- | --- | | *"Temples Breaker"* | will appear | | | and the game will end when   |  | | --- | | *player destroys all blocks* | |

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| 6 **Other Features** |  | |  | | --- | | *Possible power-ups/downs include bigger/smaller ball, fire ball (doesn't bounce on blocks), lose/gain a ball, lose/gain time, faster/slower ball, ball sticks to the paddle (click to throw).* | |

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# Project Timeline

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| Milestone | Description | Due |
| **#1** | |  | | --- | | * *Set up camera, stack some examples block, paddle and ball, gravity* | | |  | | --- | | *06/01* | |
| **#2** | |  | | --- | | * *Set up collisions, basic movement (bounce)* | | |  | | --- | | *08/01* | |
| **#3** | |  | | --- | | * *Set up other game mechanics (ball count), game over, game win without UI* | | |  | | --- | | *10/01* | |
| **#4** | |  | | --- | | * *Add power-ups/power-downs* | | |  | | --- | | *14/01* | |
| **#5** | |  | | --- | | * *Replace assets* * *Model final temple* | | |  | | --- | | *16/01* | |
| **#6** | |  | | --- | | * *Add UI: start screen, game over, ball count* * *Add possibility to restart the game when game over or win* | | |  | | --- | | *18/01* | |
| **#7** | |  | | --- | | * *Add sounds* | | |  | | --- | | *20/01* | |
| **Backlog** | |  | | --- | | * *Add scores and score counter* * *Add combos* * *Add timer* * *Add particle effects* * *Add more power ups/downs* | | |  | | --- | | *31/01* | |

# Project Sketch

**Terrain in perspective**

**Blocks stacked in 3D**

**Power ups and downs spawn from some blocks and fall towards the player**

**Ball bouncing around**

**If blocks are destroyed they react according to gravity**

**Balls left**

**Player controls the paddle**