**GAME3121 Assignment 1, Part 2: Game Loop Description**

Group name: Winterfell

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1. Initialization
   * System Compatibility Check
     + Check for Multiple Instance
     + Check for Sufficient RAM and Storage
     + Check CPU
   * Initialize Modules
     + Blue Rapsol Engine
     + DirectX 12
     + Configurations
   * Splash Screen
     + Display Splash Screen
     + Prompt User Input to start game
     + Generate Level Structure
2. Game Loop on timestep (30 times per second to 60 times per second)
   * Physics
     + Wall Collision Detection
     + Projectile Collision Detection
     + Enemy Collision Detection
     + Pick-Up Collision Detection
   * Input
     + Keyboard Listener
   * Logic
     + Lose Condition Check
     + Win Condition Check
     + Generate Level on new Level Entry
     + Process Projectile Hit
     + Process Melee Hit
     + Process Pick-Up Acquisition
     + Process Player Movement
     + Process Player Death if Applicable
     + Process Enemy Death if Applicable
     + Process AI
   * Graphics
     + Render Scene with DirectX 12
3. Application Terminated