# PROJECT STATUS REPORT

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|---|---|---|
| **Project Name** | Escape Island | **Reporting Period** |
| **Project Owner** | Kaan Balcı | Nov 5, 2024 - Nov 20, 2024 |
| **Prepared by** | Kaan Balcı | |

## HIGHLIGHTS

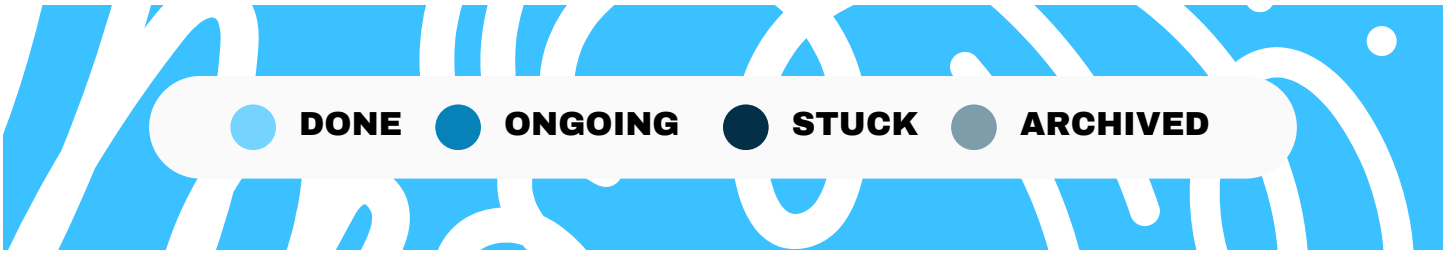
- **Functions, Variables, and Branching in C++**
- **Creating a C++ Actor**
- **C++ Code Structure**
- **C++ Compilation and Live Coding**
- **Linking Blueprint to C++**
- **Setting Our Own Custom Character Class**

## CHALLENGES

- **Create a Project with Our Assets**
- **Install the Necessary Tools for C++**
- **Learn Basic C++ Concepts**
- **Create a Moving Platform**
- **Configure Our Moving Platform**
- **Send the Platform Back**
- **Create Rotating Platforms**

## STATUS UPDATES

| Task or Deliverable | Task Owner | Status |
|---|---|---|
| **The Structure of C++ Syntax** | Kaan Balcı | DONE |
| **Creating Classes in C++** | Kaan Balcı | DONE |
| **Blueprint Subclasses of C++** | Kaan Balcı | DONE |
| **Using UPROPERTY and UE_LOG** | Kaan Balcı | DONE |
| **FString, FVector, FRotator** | Kaan Balcı | DONE |
| **GameMode and Character Classes** | Kaan Balcı | DONE |




# PROJECT FEATURES

## Engine: Unreal Engine 5.4.4

## Type: 3rd-Person Platform Game

### Game Mechanics

- **Objective: Complete levels within a set time to earn up to 3 stars.**
- **Demo Content: Currently includes only the first level, but future updates will introduce new levels.**

### Game Overview

**Escape Island is a 3rd-person platform game entirely developed by me using C++ and Blueprints in Unreal Engine 5.4.4. In the game, players aim to overcome challenging obstacles and reach the castle. Time management is a key element, offering players the opportunity to strategize and break records. Players can earn 1, 2, or 3 stars based on their performance in completing levels within the set time.**

### Skills and Concepts Learned

1. **Blueprints and C++ Integration:**

- **Improved game logic creation through visual scripting with Unreal Engine's Blueprint system. Additionally, established connections between Blueprint and C++ for seamless collaboration between the two systems.**

2. **Object-Oriented Programming (OOP) Principles:**
   - **Applied OOP concepts to structure game logic and design, coding features such as character control and level logic.**
3. **Level Design:**
   - **Designed and optimized the first level with a focus on player interaction and game flow.**
4. **Unreal Engine Fundamentals:**
   - **Built a solid foundation in Unreal Engine 5 by utilizing lighting, physics, user interface, and game mechanics effectively.**
5. **Lighting and Positioning:**
   - **Enhanced the game's atmosphere with strategic lighting and environmental adjustments for a more immersive experience.**
6. **Functions and Logic Flow:**
   - **Developed custom functions to manage core game events, such as level restarts and star calculation.**
7. **Physics and Vectors:**
   - **Worked on physics-based interactions and vector calculations to bring realism to game mechanics.**
8. **C++ Fundamentals:**
   - **Gained proficiency in C++ basics, including class creation, member variables, and functions, while integrating them effectively in Unreal Engine game development.**

# Conclusion

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**Escape Island marks a significant milestone in my game development journey. This project, fully developed by me, demonstrates the skills I have acquired in Unreal Engine and game design. I aim to enrich the game with more complex levels and advanced mechanics in the future.**