

CyprusRun Report



Made by
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1.Introduction



CyprusRun is a 3D running game where the player runs through a scripted terrain, a stylized landscape of Cyprus in our imagination. The objective of the game is to survive until the end of the sections. If you fail, restart again and again until you reach the endpoint. Each time the player dies, the game restarts and the score increases by one point. The game has features like fixed terrain that regenerates in each try, and what makes it unique is the inclusion of a history section that educates players about the rich history of Cyprus with its historical timeline from ancient Ionians to the modern era and even the imagination of future Cyprus and the people of Cyprus. The game has a high level of reflex-based gameplay, but with this gameplay, the game gives you a rich amount of information with the history section of the game. With every try, the player learns a segment and wonders about the segment and checks what it is about.

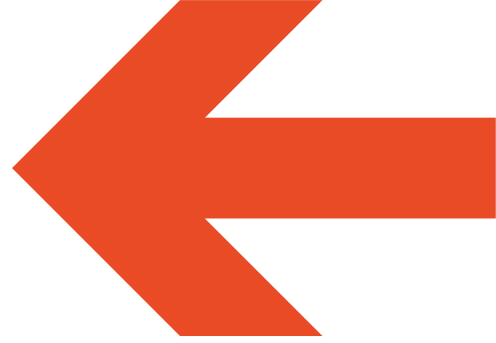
2.Team Members



Name: Arda Tatar

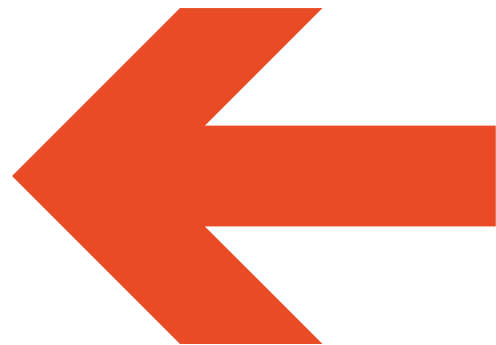
Role: Solo Developer, Designer, Programmer

3. Game Concept



CyprusRun combines simple endless running game elements with educational storytelling. The player's goal is to reach the endpoint of the game with the lowest amount of deaths. The player can restart as many times as possible and accumulate a score based on their number of resets. While doing this, the player can check the history of Cyprus from the developer's perspective and imagination, and learn something new from every segment. Each historical part is written to be informative, easy to read, and allows players to engage with the content without interrupting the fun. This unique combination of reflex-based gameplay and cultural learning creates an experience that is both entertaining and meaningful.

4. Gameplay and Features



Fixed 3D Terrain: From my past experience, this game type is best to play with 3D terrain, so we used 3D graphics for the game.

Movement-based character control: This is the main function of the game and innovative in a way that gives a totally different way of playing than Subway Surfers and Temple Run.

Run amount changes with each run attempt: Every run, the game counts your run amount so you know your run amount, and it adds some competition to the game.

In-game UI with access to a history section: The game has an in-game UI that helps you to reach the history section.

5. History Section



The "History Button" opens the "History" section. There are six buttons, and these buttons cover different ages of Cyprus:

1. Ancient Cyprus (Ionians, Achaeans, early city-kingdoms)
2. Medieval and Byzantine periods
3. Ottoman era
4. British colonial period
5. Modern Republic of Cyprus
6. Future of Cyprus

Each era has rich information in it so people can learn the rich history of Cyprus.

6. Development Tools and Workflow



Game Engine: Unity (2021.3.45f1)

- Programming Language: C#
- Design Tools: Unity UI system
- Assets: Mix of custom and Unity Asset Store items

i used these developer tools for

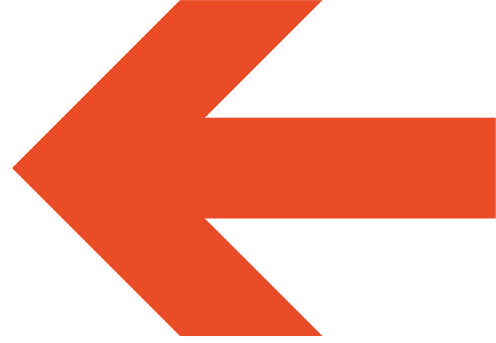
These are the tools i used for developing the game

7.Challenges and Solutions



- UI scaling issues on multiple devices: Solved with Canvas Scaler. Unity provides auto scaling for canvas. I used it and fixed my problems in another devices.
- Score increment not working: Fixed using collectable script that works like coin. So I put coin in the start of the game, and you are collecting it every single time you start game so game keeps track of your runs with coin script.
- Button navigation to history panel: Fixed with .scene manager and put variable for every scene.
- Character getting out of map: I put limitation to character's limit of going x yz so character is not going out of bounce.
- Animation Problem: I had problem with character not doing its animation. I took animations from Mixamo and made a script that uses animator in Unity without player seeing it. script `GetComponent` was savior in this action.
- Game being easy: When segments auto generated I had to be careful of game not forcing you to die. So I made one huge map that is hard to finish, so gameplay time and difficulty of the game increased by it.

8. Testing And Feedback



I tested the game with my friends and game feedback was: my friends appreciated the educational aspect and suggested smoother transitions and sound effects for history section of the game, while first tests game was too easy so we had to change segment generation.

9. Future Improvements



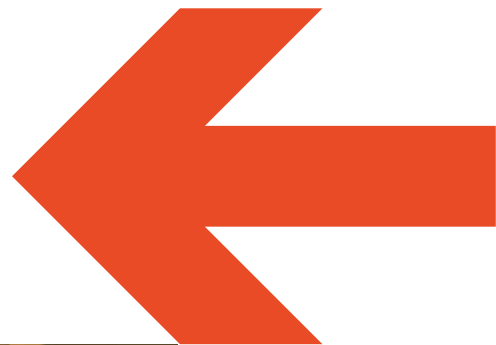
- Integrate unlockables based on history milestones: We have second character named as Kamil. If you read every history part and do secret quiz, you might unlock new character instead of Necmi.
- Expand with multiple terrain themes: After you finish the game, endless mode might open and you can play with randomized map. This might be addable in future.
- Add audio narration to the history section: We don't have rich sound design in the game. In future maybe we can change this.
- Add leaderboard for highest run count: We can make leaderboard who finished the game with less amount of runs or how many times did they finish.
- Interactive History Section: In future we can add import requests and Gemini AI and ask questions to AI and get questions based on Cyprus history.

10.Conclusion



CyprusRun is has unique blended gameplay that non other game has This solo-developed project showcases a different way to engage players by combining entertainment and learning. Future versions aims to give more way to learn with ai give leaderboard for competition and more than you can imagine

11.Screenshots





12. References



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