



GAME DESIGN DOCUMENT



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Game Overview

Title: USTHB Adventure

Platform: PC (Unity)

Genre: Open-world exploration

Rating: N/A

Target: E (Everyone)

Release date: To be announced / Coming Soon

Publisher: Independent/Educational Publisher

USTHB Adventure is an open-world exploration and puzzle game where the Player is **Mario**, reimagined as a college student, navigating a stylized, simplified version of the Houari Boumediene University of Science and Technology (USTHB) campus. Mario's primary goal is to embark on a rigorous academic challenge to **prove his worthiness** as a student. Progression is achieved by visiting the three core faculties (**Informatics, Physics, and Math**) and collecting **3 unique, symbolic academic items** from each (a total of 9 items). These items are earned by successfully interacting with NPCs (students and professors) to complete educational quests, solve logic puzzles, and answer subject-specific quizzes. Once Mario has collected all 9 items, demonstrating his full academic competence, he will be deemed worthy to unlock the **Final Ceremony Area**. **Entering this area constitutes beating the game** and triggers the victory sequence (Graduation Ceremony). The core gameplay loop is centered on exploration, positive interaction, and problem-solving, with no combat involved.

High Concept

You explore a simplified open-world version of the **USTHB University Campus** as Mario, moving between the Informatics, Physics, and Math faculties, completing **educational quizzes** and **interactive tasks**, and collecting three symbolic items from each faculty. **Gathering every required item proves Mario's worthiness** as a student and unlocks the final **graduation ceremony**, which marks the end of the game.

Unique Selling Points

- Real Algerian university setting (USTHB)
- Educational quests (mini-quizzes, logic puzzles, faculty trivia)
- Faculty-based item collecting
- Mix between exploration & learning

Platform Minimum Requirements

OS: Windows 10+, Mac OS X 10.14+

Graphics Card: Integrated graphics (e.g., Intel HD Graphics 4000) or equivalent

Processor: Dual-Core 2.0 GHz or better

Memory: 4 GB RAM

Storage: 1 GB Free Space

Input: Keyboard and Mouse (Primary)



Competence Titles

Exploitation Games by Unity Technologies

Synopsis

Mario arrives on the stylized **USTHB University Campus** not as a hero, but as a new student seeking academic validation. The game is framed as a critical rite of passage where Mario must prove his **intellectual worthiness** to succeed. This proof is symbolized by collecting **3 unique, symbolic items** from each of the three core faculties: **Informatics, Physics, and Math**. These items are secured only by demonstrating competence—solving educational quizzes, mastering logic puzzles, and assisting fellow students (NPCs).

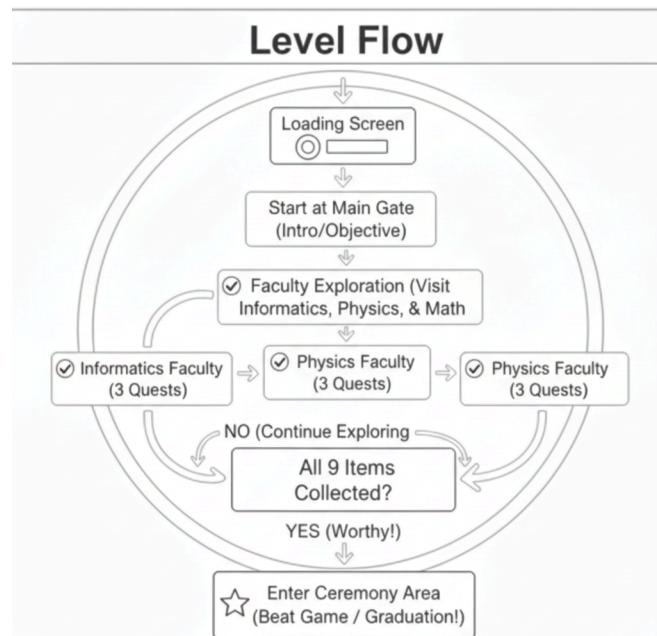
Game Objectives

- **Explore** the simplified, stylized map of the USTHB campus and its landmarks.
- **Collect 3 symbolic items** from each of the three core faculties (**Informatics, Physics, and Math**).
- **Complete** mini-games, logic challenges, and quests associated with earning each item.
- **Finish all collections → Unlock and complete the game by triggering the final graduation event.**

Game Rules

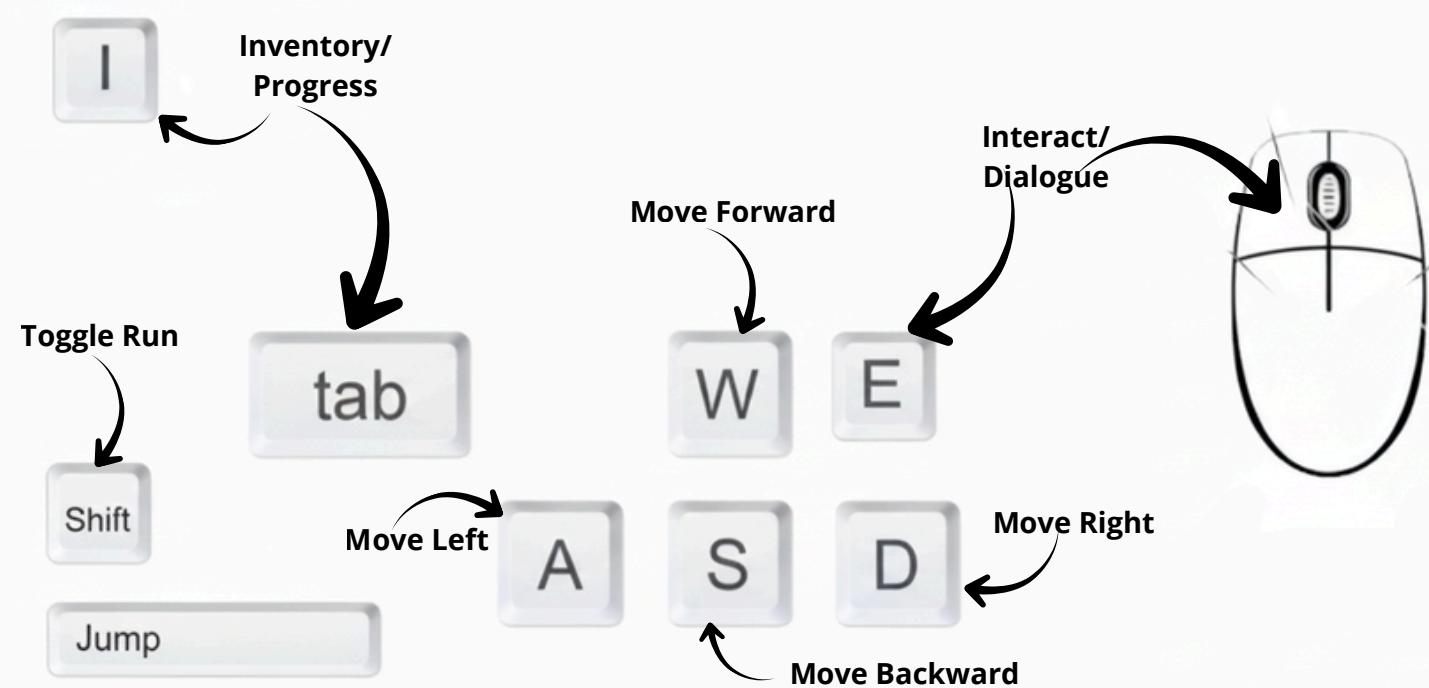
- **Item Access:** Items cannot be accessed directly or purchased; they must be **earned** through successful quiz completion, NPC assistance, or challenge completion.
- **Progression:** Mario's progress is tracked via the **Inventory/Collection UI**.
- **No Combat:** The focus is purely on exploration and puzzle-solving. Mario cannot take damage or engage in conflict.
- **Area Unlock:** The **Final Ceremony Area** is locked and only becomes accessible after all 9 academic items have been successfully collected.

Game Structure



Gameplay

Game Controls (PC)

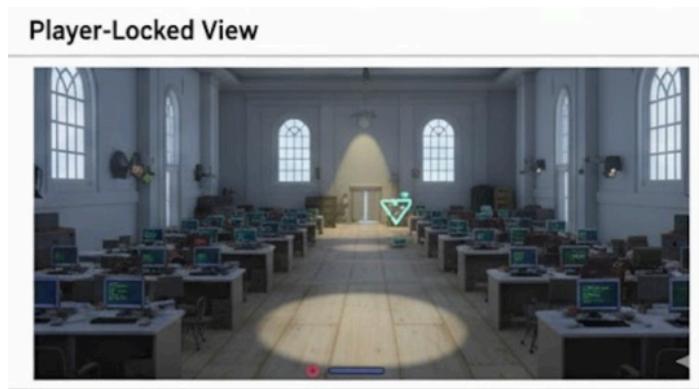


Game Camera

Viewpoint: The game utilizes a fixed 3/4 perspective (isometric or top-down view). This viewpoint was chosen to offer a clear vision of the USTHB environment (courtyards, faculty corridors) while allowing certain quest areas to be cleverly hidden.

Rotation: The camera will remain **still and will not rotate** with Mario's movement. This choice maintains a consistent view of the scene, prompting the player to navigate using the global coordinate system, as demonstrated by the 90° rotation of the level (compared to the natural 3/4 perspective) to facilitate the coordinate system.

Initial View: Upon entering a new faculty (Computer Science, Mathematics, or Physics), the camera will first focus on the main entrance and the surrounding quest objectives before locking onto Mario to allow him to explore.



HUD

The HUD is designed to be minimalist, focusing entirely on tracking progress and navigation without cluttering the screen. It provides essential information to Mario as he explores the USTHB campus.

Player

Player Characters

The player controls **Mario**, the iconic Nintendo character, reimagined as a **student explorer** of the USTHB campus whose main goal is to prove his academic worth.

Player Metrics

- **Worthiness Badges:** Earned after collecting **all 3 symbolic items** from each faculty (Informatics, Physics, Math). These badges serve as concrete proof of his academic merit.
- **Overall Progress:** Tracks the total number of items collected (e.g., 6/9) as the countdown to unlocking the Final Ceremony Area.

Player States

- **Movement:** Idle / Walk / Run / Jump (the basic traversal animations).
- **Active Interaction:** Interact / Dialogue / Solve Puzzle (the main state when talking to an NPC or starting a mini-game).
- **Hint State:** A light visual/audio state when Mario is near a collectible or a quest-giving NPC.
- **Feedback:** Clear visual and sound indicators for **success** (quest complete, item collected) or **failure** (wrong quiz answer, time expired).

Player Inventory

- **Key Items:** The **9 symbolic items** (Proof of Merit). They are prominently featured in the HUD to track the progress toward the Final Zone.
- **Interface:** **Simple, visual grid** or list interface displaying the 9 item slots, with empty and filled slots clearly marked.

Character Line-up



NPCs

These Non-Playable Characters (NPCs) are the faculty members who act as academic gatekeepers, verifying Mario's worthiness. Each professor can be found in their specific faculty building and offers a unique set of challenges (Quiz, Task, Favor) that grants one of the three required symbolic items.

- **Informatics Professor:** Male, light blue shirt, bow tie, bald, glasses.
- **Math Professor:** Female, purple shirt, bun, glasses.
- **Physics Professor:** Male, white lab coat, messy hair, glasses.

Art

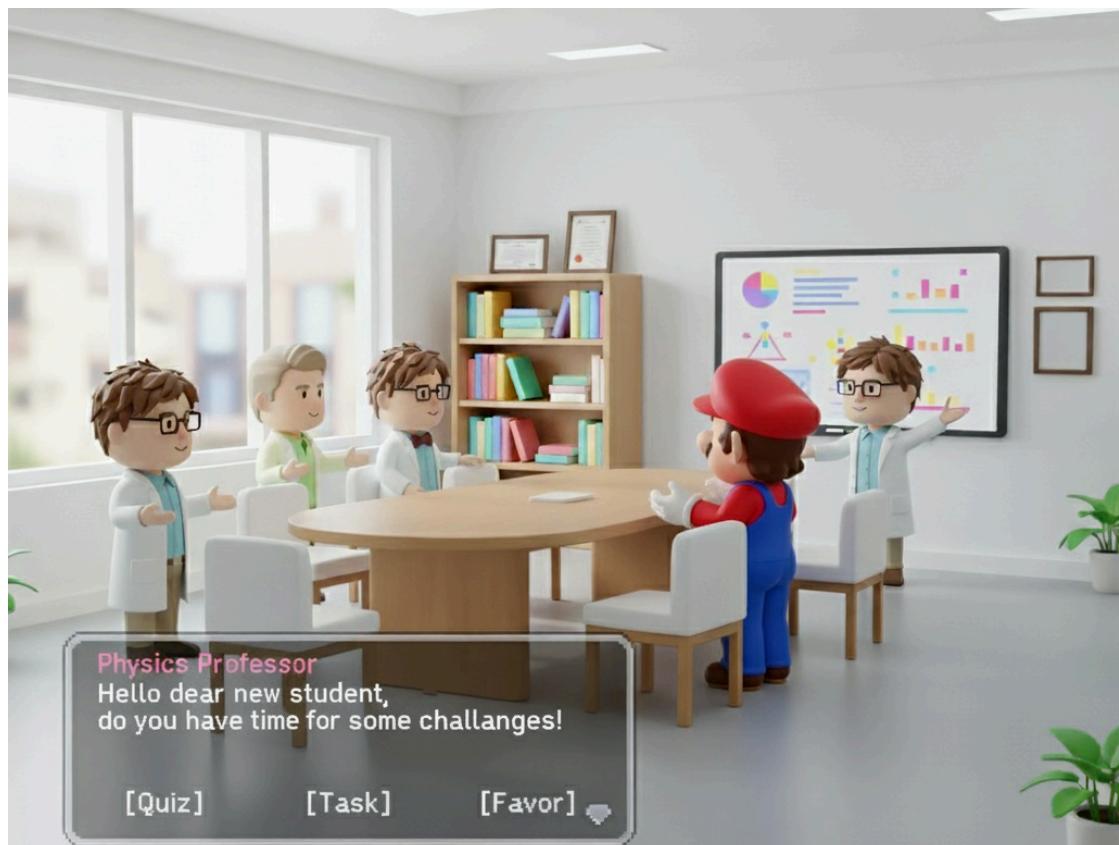
Settings

The game takes place on the stylized USTHB University Campus, focusing on three main level zones: the Informatics Faculty, the Physics Faculty, and the Math Faculty. The ultimate destination, unlocked upon completing the academic challenges, is the Final Ceremony Area.



Level Design

This hub is where Mario first interacts with the Physics Professor to prove his worthiness by choosing one of the three non-linear challenge types—Quiz, Task, or Favor—each of which awards a unique symbolic item, contributing to the single Worthiness Badge required to complete the faculty.



Audio

Background Music (BG Music)

- **mus_esplanade_loop_01:** Chill, light ambiance for the central Esplanade.
- **mus_fmi_electro_loop_01:** Subtle electronic music for the Informatics zone.
- **mus_physique_lab_loop_01:** Mechanical/experimental sounds for the Physics zone.
- **mus_math_patterns_loop_01:** Repetitive/calm melodies for mathematical puzzles.
- **mus_library_finale_loop_01:** Soft, epic orchestral music – final area (Ceremony).

Ambient Sounds

- **amb_wind_soft_01:** Light breeze in outdoor areas.
- **amb_birds_day_01:** Birds present during the day.
- **amb_rain_light_01:** Light rain, dynamic based on weather.
- **amb_campus_chatter_01:** Distant student discussions.
- **amb_steps_student_01:** Footsteps in hallways/exterior.
- **amb_door_generic_01:** Generic door opening/closing sound.
- **amb_night_crickets_01:** Specific nocturnal sounds (night only).

Sound Effects (FX) & Interactions

- **sfx_collect_item_01:** General item/resource collection.
- **sfx_collect_badge_01:** Acquiring a faculty badge.
- **sfx_door_unlock_01:** Unlocking important doors (e.g., final zone).
- **sfx_object_interact_01:** Interacting with a key object (generic).
- **puz_laser_path_01:** Laser activation (Physics puzzle).
- **puz_math_input_01:** Valid mathematical input.

User Interface (UI) & Feedback

- **ui_interact_01:** Consolidated click, confirmation, and menu open sound.
- **ui_quest_notify_01:** Mission available or urgent notification (consolidated).
- **ui_quest_done_01:** Mission completed notification.
- **ui_puzzle_success_01:** Puzzle solved – success.
- **ui_puzzle_error_01:** Puzzle failure (Generic).

NPC Voices

- **npc_student_line_01:** Student dialogue line (Generic).
- **npc_teacher_line_01:** Professor/assistant dialogue line (Generic).
- **npc_react_success_01:** Positive reaction after player success.
- **npc_react_fail_01:** Reaction after player error.

MVP (Minimum Viable Product)

The initial playable version must prove the core loop is fun and functional¹¹.

- 1 playable character (Mario).
- Built for the PC platform¹².
- Map includes: the Main Gate, Central Esplanade, and 3 complete faculties (Informatics, Physics & Math).
- 9 total quests (3 items for each of the 2 faculties).
- Basic Inventory System and functional HUD.

Wishlist

- Full USTHB Map: Implement all faculties and major landmarks.
- NPC Voice Lines.
- Custom Player Skins for Mario's student outfit.
- Day/Night Cycle and Adaptive Lighting.
- Multiplayer Scavenger Mode.