

PROJECT DOCUMENTATION — QUESTARENA

1. Project Title

QuestArena: Target — Save the Partner

2. Overview

QuestArena is a **story-based, level-wise quiz + coding quest game** designed for a college fest. Players progress through floors of a college building by defeating “bosses” at each level. Each boss is defeated by answering questions related to:

- General Knowledge
- English
- Aptitude
- Reasoning
- Technical / Coding

The game runs **on client machines in the lab**, while a **central LAN server** is used only for:

- Score tracking
 - Checkpoints (which level a player is on)
 - Coding question evaluation via an LLM API (Gemini/Qroq/etc.)
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3. Core Idea

Players are trying to rescue their partner from the Principal at the top floor of the college. To climb each floor, they must clear a level by solving questions.

4. System Architecture (Simple & Fest-Ready)

Client (Each Participant's PC) — The Game

Responsibilities:

- Runs the game (HTML + CSS + JavaScript)
- Displays:
 - Story dialogues
 - Level scenes
 - Questions
 - Timer (30 minutes)
- Handles:
 - MCQ input
 - Coding input (text area)
- Sends:
 - Level completion status
 - Scores
 - Code submissions to server

No internet needed for the game itself.

Server (One Host PC in Lab)

Responsibilities:

- Registers players
 - Stores scores
 - Tracks checkpoints (Level 0 → Level 5)
 - Evaluates coding questions using an LLM API
 - Returns only: “**CORRECT**” or “**WRONG**”
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Communication (LAN)

All clients talk to the server via:

`http://<HOST_IP>:8000`

Example endpoints:

- `/register`
 - `/submit_score`
 - `/submit_code`
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5. Round Timing

Each round slot = **45–50 minutes**

Phase	Time
Setup + Login	10 mins
Gameplay	30 mins
Buffer (errors, resets)	15–20 mins

6. Scoring System (Per Your Rules)

Level 0 — General Knowledge

- Max 5 questions
- +10 per correct
- -1 per wrong

Level 1 — English

- Max 5 questions
- +15 per correct
- -2 per wrong

Level 2 — Aptitude

- Max 5 questions
- +20 per correct
- -5 per wrong

Level 3 — Reasoning

Easy path:

- 8 questions
- +10 per correct
- -4 per wrong

Hard path:

- 2 questions
- +40 per correct
- -20 per wrong

Level 4 — Technical

Easy path:

- 8 questions
- +15 per correct
- -6 per wrong

Hard path:

- 2 questions
- +60 per correct
- -35 per wrong

Level 5 — Final Boss (Principal)

- One hard coding question
- 100 points total

7. Hidden Route (BackLog King)

At Level 1, players may:

- Investigate the voice → Hard question

- If passed:
 - Skip to Level 4
 - Get points for clearing Level 2 and 3
 - Save time
 - Ignore → Continue normally
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8. Tech Stack (Your constraint: SIMPLE)

Client:

- HTML
- CSS
- JavaScript

Server:

- Python + FastAPI
 - SQLite (optional, for score storage)
 - Any LLM API for code evaluation (Gemini/Qroq)
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🤖 FINAL POLISHED SCRIPT (Neat Format)

(Based fully on your attached rough script — cleaned, structured, same humour)

Title: Target — Save the Partner

Introduction

You are in your 3rd year of college. After many struggles, you managed to find a partner in the same college. While you were together, the Principal saw you both and captured your partner.

She is now held captive in the college building, and you have been thrown out. To reach her, you must defeat the “floor bosses” at each level by answering questions. Finally, you must defeat the Principal to save your partner.

Good luck!

Opening Scene

“Aww Dang... Here we go again. Enemies getting in the way of my eternal love. How dare you steal my Jade Beauty. This will NOT make me give up on her!!!”

Level 0 — College Gate

Final Boss: Security

Security:

“Bhai, where is your ID card? No ID card, no entry.”

Protagonist:

- *Truth*: “My ID card is with the Principal.”
- *Lie*: “I came to pay my fees.”

Security:

“It’s going to be difficult to let you pass without validation. Solve these questions to pass.”

TASK (GK Questions)

If cleared → Moves to Lobby.

Level 1 — Lobby

Final Boss: Reception Aunty

Reception Aunty:

“Why are you roaming here during class hours?”

Protagonist:

“I’m looking for the Principal. He isn’t in his cabin.”

Reception Aunty:

“The Principal gave me this paper and asked you to answer them.”

TASK (English Questions)

While going to the stairs, a voice calls out:

“Are you looking for your Mithrabindha?”

Hidden Character: BackLog King (Alias: Dragon)

- 5th year student
- 48 backlogs
- Has System Admin Lift Access Card
- Lift skips all floors and stops only at Level 3

Choice:

- Investigate → Hard question
 - If passed → Skip to Level 4 + get Level 2 & 3 clear points
 - Ignore → Continue normally
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Level 2 — Classroom

Final Boss: Teacher

Teacher:

“What are you doing without attending class?”

Protagonist:

"I'm looking for my girlfriend."

Teacher:

"Huh!? Girlfriend? For you? First answer these questions."

TASK (Aptitude Questions)

After clearing, player chooses:

- **Easy path:** More questions, less difficult, more time
 - **Hard path:** Fewer questions, harder, less time
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Level 3 — Lab

If hidden route used: System Admin stops lift at Floor 3.

System Message:

"System Access Revoked. Please exit the lift now!"

Lab Incharge (Final Boss):

"You scoundrel! You haven't come to lab since day one! Answer my questions or you won't write your externals."

TASK (Reasoning — Easy or Hard based on choice)

Level 4 — Server Room

Final Boss: System Admin**System Admin:**

"So you are the one who used the Admin lift. I heard your Mithrabindha is on the top floor."

Protagonist:

"Yes, get out of my way."

System Admin:

"You must understand systems better than the guy who set 'password123' as the admin password."

TASK: Technical MCQs (Easy or Hard based on path)

Level 5 — Top Floor (Final Boss: Principal)

Principal:

“Ahhh... the lover boy who fought security, aunties, teachers, and even the WiFi. Impressive... but stupidity is not a skill.”

“You broke rules, disturbed discipline, and messed up my server room.”

Mithrabindha:

“No! Leave him alone! He did this for me!”

Principal:

“This is your Final Placement Round. One coding question. Solve it, and you both may leave together. Fail, and your love story becomes a case study.”

TASK: One Hard Coding Question (100 pts)

Ending — If You Win

Protagonist laughs:

“Hahahahaha... I win! Now f*** off!”

He pushes the Principal off the roof without thinking... and becomes a murderer.

— TO BE CONTINUED: FIESTA 2027 —

Ending — If You Lose

The Principal pushes both of them off the rooftop.

Suddenly, BackLog King appears:

“**Malli Pudthavu ra Bhairava...**”

— TO BE CONTINUED: FIESTA 2027 —