

# HELLOWORLD



## Teacher Dashboard — Backend Features Implemented

### 1. Class Management

What is done (Backend):

- Teachers can **create classes** and get a **unique class code**.
- Students can **join a class using the code**.
- Teachers can **view and delete their classes**.

APIs implemented:

- POST /api/class/create
- GET /api/class/teacher/:teacherId
- POST /api/class/join
- DELETE /api/class/:classId

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### 2. Student Progress View

What is done (Backend):

- Teacher can see **student-wise progress for a class**.
- Includes:

- XP
- Levels
- Countries explored
- Badges
- Can be used to build **leaderboard view**.

**API implemented:**

- `GET /api/progress/class/:classId`
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### 3. Custom Quiz Builder

**What is done (Backend):**

- Teachers can **create custom quizzes** for a country.
- Quizzes support:
  - Multiple questions (MCQ)
  - Difficulty level
  - Correct answers
- Students can **view and attempt class quizzes**.
- Teachers can **manage (view/delete) quizzes**.

**APIs implemented:**

- `POST /api/tquiz`
- `GET /api/tquiz`

- `GET /api/tquiz/class/:classId`
  - `GET /api/tquiz/:quizId`
  - `DELETE /api/tquiz/:quizId`
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## 4. Content Upload

**What is done (Backend):**

- Teachers can upload **facts, challenges, or resources**.
- Content appears on student dashboard as “**Teacher’s Note of the Week**”.
- Teachers can manage their own uploaded content.

**APIs implemented:**

- `POST /api/tcontent`
  - `GET /api/tcontent`
  - `GET /api/tcontent/teacher`
  - `DELETE /api/tcontent/:id`
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## 5. Analytics Dashboard

**What is done (Backend):**

- Teacher-level analytics to understand class engagement.
- Provides data for charts like:

- Average XP per student
- Most explored countries
- Quiz completion statistics

#### **APIs implemented:**

- `GET /api/analytics/avg-xp`
  - `GET /api/analytics/countries`
  - `GET /api/analytics/quiz-stats`
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## **6. Teacher–Student Chat / Feedback**

#### **What is done (Backend):**

- One-to-one chat between teacher and student.
- Teachers can give **feedback**.
- Students can ask **clarification questions**.
- Messages support **read status**.

#### **APIs implemented:**

- `POST /api/chat`
- `GET /api/chat/:teacherId/:studentId`
- `PUT /api/chat/read`
- `DELETE /api/chat/:messageId`

## Teacher Dashboard – Screen Flow (Simple & Clear)

LOGIN/SIGNIN



TEACHER DASHBOARD HOME



My Classes



Create Class



View Class Code



Delete Class



Select Class



CLASS DASHBOARD



Student Progress / Leaderboard



XP, quizzes, avg score, countries



Quizzes



Create Quiz



View My Quizzes



Delete Quiz



Teacher Content



Upload “Note of the Week”



Delete Content



Analytics



Avg XP chart



Countries explored chart



Quiz stats



Chat / Feedback



Select Student



Send Feedback



View Questions (read status)



Logout



# Student Dashboard — Backend Features Implemented

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## ✓ 1. Learning Progress Tracker

What is done (Backend):

- Student progress is stored and managed in backend.
- Tracks:
  - XP points
  - Level
  - Badges earned
  - Countries explored
- Progress can be fetched and updated securely using JWT.

APIs implemented:

- GET `/api/student/progress`
- PUT `/api/student/progress`

👉 Used to build XP bar, level indicator, % progress on dashboard.

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## ✓ 2. Personalized Map Journey

### **What is done (Backend):**

- Backend stores list of countries visited by each student.
- Updates visited countries when student explores a new country.
- Supports unlocking countries based on progress.

### **APIs implemented:**

- PUT `/api/student/progress`  
(includes `countriesVisited` update)
- GET `/api/student/progress`

👉 Frontend can highlight visited/unlocked countries on the map.

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## **3. Streaks & Badges**

### **What is done (Backend):**

- Daily login streak logic implemented.
- Backend tracks:
  - Current streak
  - Last login date
- Badge system implemented:
  - Badge model

- Badge assignment logic
- Supports gamification like achievements.

👉 Frontend displays 🔥 streak counter & earned badges.

### Badge APIs (Quick List)

- **GET /api/badges**  
👉 Get all badges
  - **GET /api/badges/:id**  
👉 Get single badge details
  - **POST /api/badges**  
👉 Create a new badge (admin/teacher)
  - **PUT /api/badges/:id**  
👉 Update badge details
  - **DELETE /api/badges/:id**  
👉 Delete a badge
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## ✓ 4. Student Notebook (Saved Notes)

### What is done (Backend):

- Students can save useful phrases from AI chats.
- Notes are stored per student.
- Supports fetching and deleting notes.

### APIs implemented:

- **POST /api/notebook**

- **GET** /api/notebook
- **DELETE** /api/notebook/:id

👉 Acts like a **personal phrasebook** for students.

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## ✓ 5. Quiz & Game Zone

### What is done (Backend):

- Quiz attempt history stored per student.
- Stores:
  - Quiz scores
  - Attempts
  - Best scores
- Supports leaderboard-style data.

### APIs implemented:

#### 1. Submit Quiz

- **POST** /api/quiz/submit
- Student submits quiz score
- Backend saves attempt & updates XP

#### 2. Quiz History

- **GET** /api/quiz/history

- Student gets all past quiz attempts
- Used for “My Quiz History”

### **3.Leaderboard**

- `GET /api/quiz/leaderboard`
- Shows top students
- Accessible to students & teachers

## Backend API Checklist Teacher Dashboard

### Feature 1: Class Management

- POST /api/class/create – Create class
- GET /api/class/teacher/:teacherId – Get teacher classes
- DELETE /api/class/:classId – Delete class
- POST /api/class/join – Student joins class

### Feature 2: Student Progress View

- GET /api/progress/class/:classId – Leaderboard & student stats

### Feature 3: Custom Quiz Builder

- POST /api/tquiz – Create quiz
- GET /api/tquiz – Teacher quizzes
- GET /api/tquiz/class/:classId – Class quizzes
- GET /api/tquiz/:quizId – Single quiz details
- DELETE /api/tquiz/:quizId – Delete quiz

### Feature 4: Teacher Content Upload

- POST /api/tcontent – Create content (teacher)
- GET /api/tcontent – Student dashboard content
- GET /api/tcontent/teacher – Teacher's own content
- DELETE /api/tcontent/:id – Delete content (teacher)

### Feature 5: Analytics Dashboard

- GET /api/analytics/avg-xp – Average XP
- GET /api/analytics/countries – Most explored countries
- GET /api/analytics/quiz-stats – Quiz stats

### Feature 6: Teacher–Student Chat

- POST /api/chat – Send message
- GET /api/chat/:teacherId/:studentId – Chat history
- PUT /api/chat/read – Mark messages read
- DELETE /api/chat/:messageId – Delete message

## Backend API Checklist for Student Dashboard

### ① Learning Progress Tracker

- **GET /api/student/progress** → Fetch student XP, levels, badges, % countries explored
- **PUT /api/student/progress** → Update progress after completing quizzes, games, or AI chats

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### ② Personalized Map Journey

- **GET /api/student/progress** → Get list of visited/unlocked countries
  - **PUT /api/student/progress** → Mark a country as visited
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### 3 Streaks & Badges

- **GET /api/badges/** → List all badges
  - **GET /api/badges/:id** → Get single badge info
  - **POST /api/badges/** → Award new badge (if applicable)
  - **PUT /api/badges/:id** → Update badge details
  - **DELETE /api/badges/:id** → Delete a badge
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### 4 Student Notebook (Saved Notes)

- **POST /api/notebook/** → Save a phrase or note from AI chat
  - **GET /api/notebook/** → Fetch all saved notes
  - **DELETE /api/notebook/:id** → Delete a note
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### 5 Quiz & Game Zone

- **POST /api/quiz/submit** → Submit quiz results
- **GET /api/quiz/history** → Fetch student quiz history
- **GET /api/quiz/leaderboard** → View top students for leaderboard