**User Manual for The Tower**

**1. Introduction**

Welcome to *The Tower*, an educational mobile application designed to make IBM SkillBuilds engaging and interactive through a game show format. This user manual provides step-by-step guidance on using the app efficiently.

**2. System Requirements**

**For Mobile App:**

* **iOS:** iOS 15.0 or later (iPhone 8 or newer)
* **Android:** Android 8.0 (API level 26) or higher
* **Storage:** 150MB free space + 50MB for cache
* **Internet Connection:** Required for authentication and game content

**For Backend System (Admin Only):**

* **Minimum:** Dual-Core 2.0 GHz, 4GB RAM, 1GB storage, Windows 10/macOS 10.14/Ubuntu 20.04
* **Recommended:** Quad-Core 2.5 GHz, 8GB RAM, 5GB+ storage, Windows 11/macOS 12/Ubuntu 22.04

**3. Installation & Setup**

1. Download *Expo Go* from the App Store (iOS) or Google Play Store (Android)
2. Clone the GitHub repository:

git clone <https://github.com/COMP2281/software-engineering-group24-25-15>

1. Move into the project directory:

cd software-engineering-group24-25-15

1. Set up a virtual environment:

**Windows:**

python -m venv venv

venv\Scripts\activate

**Mac/Linux:**

python3 -m venv venv

source venv/bin/activate

1. Set up environment variables in .env file.

Here are our .env variables, these need to be placed in the root of the project, or using your own API key would be preferable

IBM\_CLOUD\_URL=https://eu-gb.ml.cloud.ibm.com

IBM\_API\_KEY=ycP3IhHgu49YARGhbTYOQiQ64o2m0KOyTbMDLH4-KzJY

IBM\_MODEL\_ID=ibm/granite-3-2b-instruct

IBM\_PROJECT\_ID=0cfb84e0-cf2e-4419-9a80-95b8da0860cb

Below is a second .env file containing the IP address and API URL that you need to run expo go:

EXPO\_PUBLIC\_API\_URL="http://YOUR\_IP:8000"

REACT\_NATIVE\_PACKAGER\_HOSTNAME="YOUR\_IP"

This needs to be placed within the react-native-app folder

1. Run python setup.py to install dependencies and start the backend server.
2. Scan the QR code in the terminal using *Expo Go* to launch the app

**4. Getting Started**

**Creating an Account:**

* Open *The Tower* app
* Select *Sign Up*
* Enter email and password (email verification required)
* Login with credentials

**Navigating the App:**

* **Home Page:** Play the game or access practice mode
* **Game Menu:** Start a new game, check leaderboard, statistics, and AI chat.
* **Settings:** Adjust notifications, manage profile, and log out.
* **Friends:** Add/view friends and compare scores.

**5. Playing the Game**

* **Single-player Mode:** Compete against an AI bot and answer multiple-choice questions.
* **Practice Mode:** Answer questions without scoring or competition.
* **AI Host:** Provides hints and insights into topics.
* **Scoring System:** Earn points for correct answers and track progress.

**6. Admin Features**

* Access the admin panel via http://<YOUR\_IP>:8000/admin.
* Use Django-admin to manage user roles and question database
* Upload questions in bulk via .csv file

**7. Troubleshooting**

* **API connection issues:** Ensure server us running and IP is correct
* **Authentication Problems:** Clear app cache and verify credentials
* **Environment Configuration**
* **Database issues:** Run python manage.py migrate to sync the database
* **App Crashes:** Update Expo CLI and React Native libraries.

**8. Future Features**

* Multiplayer mode for real-time competition
* Additional difficulty levels
* Enhanced security with Two-Factor Authentication (2FA)

**9. Contact & Support**

For further assistance, visit our GitHub repository or contact our team.

Enjoy learning with The Tower!