Final Release

for

BrainBox

Version 1.0.0

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Prepared by Group 1

FPT Quy Nhon AI Campus

Member

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Table of contents

I.   Overview
A. Project Objectives

BrainBox is an online learning platform developed to provide a modern and convenient learning environment for students and teachers. The main goals of the project include:

- Create a friendly, easy-to-use online learning system for learners.
- Support teachers to create and manage courses with multimedia content.
- Provide a learning progress tracking system to help learners easily manage their learning process.
- Integrate online payment features to register for courses.
- Build an administration system for Admins to monitor and manage the entire platform.

B. Release Scope

1. Main features in this version:

a) Learner

- Register, log in, log out.
- View all courses on the platform.
- View courses with categories.
- View course detail.
- Pay for courses online.
- View list of enrolled courses.
- Track learning progress.
- Chat with Teacher.
- Ask with BrainBox Agent.
- Register to become a potential teacher.
- View profile.

b) Teacher

- Register, log in, log out.
- Create, edit courses with multimedia content.
- Manager courses list.
- View revenue reports from courses.
- Create withdrawals to get revenue.
- Answers for learner questions.
- View profile.

c) Admin

- Login, log out.
- Manage student progress and revenue reports.
- Check courses created by Teachers.
- Check request withdrawal of Teachers & auto send email notification after process.

2. Features not yet available in this version:

- Learner competency tests after completing the course
- Offline learning mode.

C. Deliverable Package

#	File	Note	Description
1	SRS	Software Requirement Specification	Describe in detail the functional, non-functional requirements and technical constraints of a system.
2	SDS	Software Design Specification	Describe in detail the architecture, structure and design of the system.
3	Figma	Figma	Design the user interface (UI) of a website.
4	Backend	GitHub Repository - Backend	Contains the source code of the backend system, including API, data processing, database connectivity, and related services.
5	Frontend	GitHub Repository - Frontend	Contains the source code of the user interface, including UI components, display logic, and connections to the backend to display data.
6	Deployment	GitHub Repository - Deployment	Contains system configuration and deployment documentation.

II.   Key Features

1. **User account system:** Support registration, login, logout for students, teachers and administrators.
2. **Course management:** Teachers can create, edit, delete and publish courses with multimedia content.
3. **Track learning progress:** Students can view learning progress and course completion status.
4. **Course payment:** Support online payment to register for courses.
5. **Evaluation and feedback system:** Students can rate and leave comments on courses.
6. **Admin dashboard:** Admin can manage user accounts, review courses and track revenue reports.
7. **Notifications and reminders:** Send notifications to students and teachers about course updates, assignments and important events.

III.   Testing and Results

A. Key Test Results

- Total number of test cases: 150.
- Number of successful test cases: 140.
- Number of failed test cases: 10.

B. Backlog issues

List of unresolved issues:

#	Bug name	Priority	Description
1	NavBar Broken for Learner	High	Learner common navigation bar works properly
2	Missing First Name & Last Name in Teacher Profile	High	In the Teacher Profile page, the system is not getting the value of firstName and lastName even though these two fields are available after user login or registration.
3	UI Breaks and Phone Validation Issue in Teacher Profile	High	- Broken Layout: Teacher Profile page interface has layout error - No Validate Phone Number: When entering an invalid phone number, the system does not display a warning
4	Learner Setting Information Not Persisting After Refresh	High	After updating the information in the Learner's Setting Information section and pressing "Save", the displayed data seems to be updated. However, when pressing F5 (Refresh page), the information returns to the old state,

IV.   Deployment Requirements

A. Deployment Environment

1. Infrastructure:

- Frontend: Deployed on Vercel (React.js)
- Backend: Deployed on Render (NestJS)
- Database: Supabase (PostgreSQL 14)

2. Specifications

- Frontend Hosting: Vercel (Global Edge Network for optimized performance)
- Backend Hosting: Render (Auto-scaling, managed environment)

- Database: Supabase (Managed PostgreSQL, real-time capabilities)
- Web Server: Nginx (if used for reverse proxy or static asset serving)
- Operating System: Ubuntu 22.04 LTS (for any additional self-managed services)

3. Network & Performance
- Network Bandwidth: Based on Vercel, Render, and Supabase scaling policies
- Supported browsers: Chrome, Firefox, Edge

B. Deployment Process
1. Upload source code to server
- Clone repository from GitHub to server.
- Install necessary packages for frontend and backend.

2. Configure environment
- Set environment variables (.env) for the backend.
- Set environment variables (.env) for the frontend.

3. Test system
- Run backend and frontend application.
- Test connection to database.
- Test interface on browser.
- Run API tests and test important functions.

4. Deploy officially
- Recheck the entire system before putting it into operation.

V. Release Notes

A. Installation Guides
- For backend: https://github.com/lzaycoe/brainbox-backend/blob/main/CONTRIBUTING.md
- For frontend: https://github.com/lzaycoe/brainbox-frontend/blob/main/CONTRIBUTING.md

B. User Manual
- YouTube: Link

VI. Approvals

List of members responsible for approving the release:

#	Full name	Student ID	Role	Confirm
1	Lê Minh Vương	QE170148	PM, BE, FE	Approve
2	Nguyễn Thị Thúy	QE170033	QA, FE	Approve
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*

PM - Project Manager

BA - Business Analyst

DS - Designer

BE - Backend Developer

FE - Frontend Developer

QA - Quality Assurance