

CBT Desktop Application – User Guide

This document provides a clear, step-by-step guide to installing, setting up, and using the CBT Desktop Application. It is written for **non-technical users** such as school administrators, teachers, and ICT staff.

1. System Overview

The CBT Desktop App is an **offline-first computer-based testing system** designed for schools. It can run entirely within a **local (LAN) network** without internet access, except when activating a license.

The system supports two installation modes: - **Server Installation** – hosts the database and application for the school - **Client Installation** – connects to the server so multiple computers can share the same data

2. Installation Process

Step 1: Extract the Application

If the app is provided as a ZIP file: 1. Right-click the ZIP file 2. Select **Extract All**

After extraction, the application folder will contain: - CBTApp.exe - mysql (folder) - jre (folder) - launch4j.log

👉 **Always start the application by double-clicking** CBTApp.exe .

Step 2: First-Time Launch

On first launch: - A popup will appear asking you to choose **Server Installation** or **Client Installation**

Step 3: Choosing Installation Type

A. Server Installation

Choose **Server Installation** if: - This computer will store the database - This is the main system for the school - Other computers will connect to this machine

What happens automatically: - MySQL is set up and initialized - Default users are created - Configuration files are generated and saved

Configuration location:

C:\Users\<YourUsername>\AppData\Roaming\CBTDesktopApp

B. Client Installation

Choose **Client Installation** if: - This computer will be used by teachers or students - The database already exists on another machine

During setup: - You will be asked to enter the **server's local network IP address** - The app creates a configuration that points to the server - All data (users, exams, results) is shared

👉 Important: - The IP address must be the **local network IP of the server computer** (for example: 192.168.1.20) - The server machine must be powered on and running

Step 4: Automatic Setup and Startup

- Installation runs automatically
- You may be prompted to click **OK** as certain setup stages complete
- Once database setup is finished, the application server starts
- A popup shows server startup progress

When setup is complete: - Your browser opens automatically at:

http://localhost:8080

3. System Tray Controls

After startup, a **system tray icon** appears at the bottom-right of the Windows screen (near battery and Wi-Fi icons).

Tray Options

- **Double-click icon** → Opens the app in your browser
- **Right-click icon** → Displays:
 - **Launch App** – Opens the app in your browser
 - **Stop Server** – Safely stops the server and database
 - **Exit** – Closes the application

👉 After stopping the server, restart the app by running `CBTApp.exe` again.

4. Performing a Clean Reinstallation

To completely reset the application:

1. Stop the app using **Stop Server** from the tray
2. Go to:

C:\Users\<YourUsername>\AppData\Roaming

3. Delete the folder:

CBTDesktopApp

4. Then check:

C:\ProgramData

5. Remove any folder named CBTDesktopApp if present

👉 If these folders are not removed, the app will reuse existing configurations.

5. Default User Accounts

On first server installation, the system automatically creates:

Role	Username	Password
Admin	admin1	1111
Teacher	teacher1	2222

These accounts have the highest permissions and should be changed after setup.

6. License Restrictions

Without a license: - 1 Admin user - 1 Teacher user - Maximum of 4 Student users

With an activated license: - Unlimited users across all roles

7. Initial Setup Requirements

Before the app can be used fully: - Subjects must be created - Topics must be attached to subjects - Classes and arms must be reviewed and customized

Default classes and arms are provided but should be adjusted to match your school structure.

8. User Roles and Permissions

Admin Users

Admins have full control of the system: - Create, edit, and delete all users - Create, manage, publish, and delete exams - Assign students and questions to exams - Create and manage subjects and topics - Create and manage classes and arms - Create and publish news - View dashboards and system metrics - Export tables and reports

Teacher Users

Teachers can: - Create, edit, publish, and delete exams - Create, edit, and delete questions - Create and manage subjects - View students - Assign or detach students from exams - Grade **subjective questions** - View results and download result PDFs - Export tables and reports

👉 **Teacher Permission Scope** - Only the **default teacher account** has global access - Teachers created by an admin can only: - Access their assigned classes - Manage their own exams and questions - They cannot view, create, mark, or manage exams and questions belonging to other teachers or classes

Student Users

Students can: - View exams assigned to them - See exam status (Pending or Taken) - Take published exams - View results after they are released

9. How Exams Work

1. Exams are created for **specific classes**
2. Teacher must:
3. Assign students
4. Attach questions
5. Publish the exam

Only published exams are visible to students.

Exam Deletion Rules

- Exams can be deleted easily if:
 - No student has taken the exam
- If an exam has been taken:
 - All students and questions must be detached first
 - This deletes **all answers, results, and session records**

👉 Deleted data cannot be recovered.

10. How Questions Work

- Questions belong to specific subjects and classes
- Creation methods:
 - Single entry (recommended for complex math)
 - Bulk upload (simple questions only)

👉 Bulk upload does **not** support complex mathematical expressions.

Question Deletion Rules

- Questions can be deleted if never answered
- If already answered:
 - All student answers and sessions are removed

Always confirm before deleting questions.

11. User Management

- Only Admins can create users
- Users can be created:
 - Individually via forms
 - In bulk using a supported upload format

Each user can edit their own profile when logged in.

12. Licensing and Activation

Activating a License

1. Log in as Admin
2. Go to **Profile** → **Activate License**
3. Enter school information
4. Confirm setup and proceed to payment

After successful payment: - All user restrictions are removed

👉 Internet access is required **only** during license activation.

13. End-to-End Application Workflow

1. Admin logs in using:
2. Username:
3. Password:
4. Admin creates student accounts

5. Admin creates subjects and attaches topics
 6. Admin reviews and updates classes and arms
 7. Teachers create questions (per subject and topic)
 8. Exams are created for valid future dates
 9. Students are assigned to exams
 10. Questions are attached to exams
 11. Exam is **published** (required for visibility)
-

Exam Taking and Results

- Students log in and view assigned exams
- Student clicks **Start** to take an exam
- After submission, student returns to exam list

Marking and Results Publishing

- Objective (MCQ / True-False) questions are marked automatically
- Subjective questions require teacher grading

Result publishing options: - **Automatic release:** Available only when all questions are objective - **Manual release:** Required if subjective questions exist

Once results are published, students can view them.

14. Final Notes

- Always stop the server using the tray icon
 - Avoid force-closing the application
 - Change default passwords after setup
 - Keep the server computer powered on during exams
-

End of User Guide