**CBCentra School Management System**

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1. Introduction

What is CBCentra?

CBCentra is Uganda's premier desktop school management system, purposebuilt for the CompetencyBased Curriculum (CBC). Developed with Python and featuring a modern Pyside6 interface and MySQL, CBCentra delivers the speed, reliability, and precision that Ugandan secondary schools need to excel in the CBC era.

**Purpose of This Document**

This documentation provides comprehensive guidance for administrators, teachers, and staff members who will be using CBCentra to manage:

* School operations
* Student data management
* CBC assessment processes

**Document Scope**

This guide covers:

* System overview and architecture
* Installation procedures
* User roles and permissions
* Core functionality
* Operational workflows

2. System Overview

The CBCentra Difference

CBCentra is not just another school management system—it's a CBC Control Center designed specifically for Uganda's educational landscape. Unlike generic solutions, CBCentra understands the unique requirements of CBC evaluation, Ugandan term structures, and the practical challenges schools face with inconsistent internet connectivity.

Core Design Principles

DesktopNative Architecture

* Offlinefirst functionality ensuring uninterrupted operations
* Highperformance data processing and rendering
* Local data security with encrypted storage
* Scalable from small schools to multicampus institutions
* Can connect to a local network (LAN)

CBCSpecific Integration

* Builtin alignment with NCDC curriculum standards
* Competency tracking and strand mapping capabilities
* Learning outcome assessment tools
* CBCcompliant reporting systems

Key Problem Solutions

The transition to CompetencyBased Curriculum brought specific challenges that CBCentra addresses:

| Challenge | CBCentra Solution |
| --- | --- |
| Complex Assessment Requirements | CBC demands tracking of multiple competencies, strands, and learning outcomes |
| Integrated Operations Need | Schools require seamless connection between academics, finance, and administration |
| Connectivity Reliability | Many areas lack consistent internet, requiring robust offline capabilities |
| RoleBased Access Control | Different users need tailored interfaces and permissions |
| Regulatory Compliance | Schools must align with NCDC standards while maintaining operational efficiency |

**3. System Architecture**

Modular Design Overview

CBCentra operates through five interconnected modules that function seamlessly together:

🎯 CBC Evaluation Engine

* Competency tracking and progress monitoring
* Strand mapping and learning outcome assessment
* Performance analytics and trend analysis
* CBCcompliant report generation

📚 Academic Management Module

* Examination scheduling and administration
* Marks entry with builtin validation
* Performance analysis across multiple metrics
* Flexible reporting for both traditional and CBC formats

💰 Financial Operations Module

* Comprehensive student fee management
* Payment tracking and automated receipts
* Account ledgers and balance monitoring
* Financial reporting and budget analytics

👥 Student Administration Module

* Complete student profile management
* Attendance tracking and automated reporting
* Parent/guardian communication systems
* Academic history and records maintenance

🔒 Security & Access Control

* Rolebased user management system
* Comprehensive audit trails and activity logging
* Advanced data encryption and backup protocols
* Permissionbased feature access control

**Technical Specifications**

**System Requirements**

Minimum Configuration:

* Operating System: Windows 10 or later
* RAM: 4GB minimum
* Storage: 2GB available space
* Display: 1366x768 resolution
* Network: Optional (for SMS and update features)

Recommended Configuration:

* Operating System: Windows 8 and above
* RAM: 8GB or higher
* Storage: SSD with 5GB+ available space
* Display: 1920x1080 or higher resolution
* Network: WiFi or ethernetLAN or WAN

**4. User Roles and Access Levels**

🔧 System Administrator

Primary Responsibilities:

* Complete system oversight and configuration
* User account management and role assignments
* Data backup and security maintenance
* System updates and maintenance scheduling

Access Permissions:

* Full system configuration access
* User management and role assignment
* System reports and analytics dashboard
* Data export and backup controls

🏫 School Administrator

Primary Responsibilities:

* Schoolwide operational oversight
* Strategic planning and decision support
* Stakeholder reporting and communication
* Policy implementation and monitoring

Access Permissions:

* Comprehensive reporting and analytics
* Student and staff data overview
* Financial summaries and trends
* Academic performance monitoring

👨‍🏫 Academic Staff (Teachers)

Primary Responsibilities:

* Student assessment and grade entry
* Attendance tracking and monitoring
* Parent communication and updates
* Classroomspecific reporting

Access Permissions:

* Assigned class and subject data
* Marks entry and assessment tools
* Student progress tracking
* Basic reporting functions

💼 Finance Officer

Primary Responsibilities:

* Fee collection and payment processing
* Financial record maintenance
* Account reconciliation and reporting
* Budget tracking and analysis

Access Permissions:

* Student financial records
* Payment processing tools
* Financial reporting modules
* Account management features

📝 Data Entry Clerk

Primary Responsibilities:

* Student data entry and maintenance
* Document processing and filing
* Basic administrative support
* Data verification and updates

Access Permissions:

* Student information entry
* Basic data modification rights
* Limited reporting access
* Assigned administrative functions

5. Getting Started

Initial Setup Process

Step 1: System installation and configuration  
Step 2: Schoolspecific parameter setup  
Step 3: User account creation and role assignment  
Step 4: Data migration (if applicable)  
Step 5: Staff training and orientation

Daily Operations Workflow

Morning Setup:

1. System login and role verification
2. Data entry and updates
3. Realtime monitoring and alerts

End of Day: 4. Report generation and distribution 5. System backup and maintenance

Support and Training

* Comprehensive user training programs
* Ongoing technical support
* Regular system updates and enhancements
* User documentation and resources

6. Benefits and Expected Outcomes

🏛️ Institutional Benefits

* Streamlined operations and reduced administrative burden
* Enhanced data accuracy and regulatory compliance
* Improved communication between stakeholders
* Costeffective solution with onetime licensing

📖 Educational Benefits

* Better tracking of student competency development
* Improved assessment accuracy and reporting
* Enhanced parentschool communication
* Datadriven decision making for improved outcomes

⚡ Operational Benefits

* Reduced manual processes and paperwork
* Automated calculations and report generation
* Reliable offline functionality
* Scalable solution for institutional growth

Document Information

| Field | Details |
| --- | --- |
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Note: This document is proprietary to CBCentra and intended for authorized users only.

*For technical support or additional information, please contact the CBCentra Development Team. +256 774617788/757922692, Email:* [*bewoku14@outlook.com*](mailto:bewoku14@outlook.com)

**User Management Form Guide**

**Purpose: Manage system users, roles, permissions, and account status**

**Step-by-step Instructions:**

* Adding a New User
  + Navigate to: Dashboard → User Management tab
  + Fill in required fields:
* Username (must be unique)
* Full Name
* Role (Admin, Headteacher, Teacher, Finance, Subject Head, Staff)
* Password (min. 8 characters)
* Confirm Password
  + Optional: Link to existing teacher record
  + Click: "Add User" button (green)

**# 2. Editing Existing User**

* 1. Select user from the table by clicking on their row
  2. Modify fields as needed (username, name, role)
  3. Click: "Update" button (blue)

**# 3. Resetting Password**

* 1. Select user from the table
  2. Enter new password in Password field
  3. Reenter password in Confirm Password field
  4. Click: "Reset Pwd" button (orange)

**# 4. Account Management**

1. Deactivate: Temporarily disable user access (red button)
2. Reactivate: Restore access to deactivated user (light blue button)
3. Unlock Account: If user is locked due to failed login attempts (info button)
4. Delete: Permanently remove user (dark red button use with caution!)

**# 5. Searching Users**

* 1. Use search box in topright of table
  2. Type username or full name
  3. Press Enter or click "Search"

**##Login Logs Monitoring Guide**

**Purpose: Monitor user login activity and security events**

**Access: Dashboard → Reports tab → Login Activity subtab**

# 1. **Viewing Login Activity**

Table shows: Timestamp, Username, Status (Success/Failed/Locked), IP Address

Color coding:

✅ Green = Successful login

❌ Red = Failed attempt

🔒 Orange = Account locked

**# 2. Filtering Logs**

1. Date Range: Use From/To date pickers

2. Status Filter: Select from dropdown (All, Success, Failed, Locked)

3. User Filter: Enter specific username

4. Click: "Apply Filters"

**# 3. Statistics Overview**

1. Total Logins: All login attempts
2. Successful: Completed logins
3. Failed: Incorrect password/username
4. Locked: Accounts temporarily disabled

**# 4. Exporting Data**

* 1. Click: "Export to CSV"
  2. Choose location to save file
  3. File includes: All visible filtered data

**# 5. Maintenance**

1. Delete Old Logs: Removes records older than 90 days (Admin only)
2. Refresh: Updates with latest data

**## 📊 Audit Trail Logs Guide**

**Purpose: Track all system changes and user actions**

**Access: Dashboard → Reports tab → Audit Trail subtab**

**# 1. Understanding Audit Events**

1. CREATE: New records added
2. UPDATE: Existing data modified
3. DELETE: Records removed
4. LOGIN/LOGOUT: User access events

**# 2. Filtering Audit Logs**

1. Date Range: Select timeframe
2. Action Type: Filter by operation type
3. Table: Filter by affected database table
4. User: Filter by specific username
5. Apply Filters to update view

**# 3. Reading Audit Entries**

1. Each record shows:
2. Timestamp: When action occurred
3. User: Who performed the action
4. Action: What was done (Create/Update/Delete)
5. Table: Which data was affected
6. Record ID: Specific item changed
7. Description: Details of the change
8. IP Address: Where action originated

**# 4. Statistics Overview**

1. Total Actions: All recorded events
2. CREATE Count: New items added
3. UPDATE Count: Modifications made
4. DELETE Count: Items removed

**# 5. Data Management**

1. Export: Save audit trail to CSV for reporting
2. Refresh: Load latest audit entries
3. Delete Old: Remove records older than 1 year (Admin only)

**## 🛡️ Security Best Practices**

**For Administrators:**

* 1. ***Regularly review Login Logs for suspicious activity***
  2. ***Monitor Audit Trail for unauthorized changes***
  3. ***Use strong passwords and enforce password policies***
  4. ***Deactivate unused accounts promptly***
  5. ***Limit admin privileges to necessary personnel only***

**For All Users:**

1. ***Never share your login credentials***
2. ***Report suspicious activity immediately***
3. ***Log out when leaving workstation***
4. ***Use strong, unique passwords***
5. ***Lock workstation when unattended***

**## 🆘 Troubleshooting Common Issues**

**Login Problems:**

* ***Check username/password spelling***
* ***Verify Caps Lock is off***
* ***Contact admin if account is locked***

**Permission Errors:**

* ***❌ "Access Denied" = Your role doesn't have permission***
* ***✅ Contact administrator for access requests***

**Data Not Loading:**

* ***🔄 Click "Refresh" button***
* ***📶 Check internet connection***
* ***🖥️ Restart application if persistent***

**Export Issues:**

* ***💾 Ensure you have write permissions to save location***
* ***📁 Check available disk space***

**## 📞 Support Contact**

**For technical assistance:**

* **Email: support@cbcentra.com**
* **Phone: [Your support number]**
* **Hours: Monday Friday, 8:00 AM 5:00 PM**
* **Emergency afterhours support: For system outages only**

**STAFF TAB**

**Overview**

The Teacher Management tab allows you to manage teaching staff information, including personal details, contact information, employment data, and photos. You can add, edit, delete, search, export, and import teacher records.

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***Adding a New Teacher***

***StepbyStep Guide***

1. Navigate to the Staff Form Tab Click on the "Staff Form" tab at the top

2. Fill in Personal Information

* Enter a unique Staff ID Code (required)
* Select Salutation (Mr., Mrs., Ms., Dr., Prof.)
* Enter First Name and Surname (required)
* Full Name will autogenerate
* Select Gender
* Enter Birth Date using the calendar picker
* Enter National ID Number
* Enter Next of Kin information

3. Fill in Contact Information

* Enter Email address
* Provide Phone Contact 1 and Day Phone numbers
* Enter Current Address
* Specify Home District
* Add Emergency Contact numbers

4. Fill in Employment Information

* Select the School from the dropdown (required)
* Enter Subject Specialty
* Specify Qualifications
* Select Date Joined using calendar
* Choose Staff Type (Teaching, Administrative, etc.)
* Select Employment Status (Fulltime, Parttime, etc.)
* Enter Position (required)
* Enter Monthly Salary
* Check "Active Staff Member" if applicable

5. Add a Photo (Optional)

* Click "Select Photo" to choose a teacher photo
* Supported formats JPG, JPEG, PNG, GIF, BMP
* Click "Remove" to delete the selected photo

6. Save the Record

* Click "Add Teacher" to save the new record
* The system will validate all required fields before saving

***Editing an Existing Teacher***

***Stepbystep Guide***

1. Navigate to the Staff Data Tab Click on the "Staff Data" tab
2. Select a Teacher Click on any teacher in the list to select them
3. Switch to Form Tab Click "Edit Selected" or doubleclick the teacher
4. Make Changes Modify any fields as needed
5. Save Changes Click "Update" to save your changes

***Deleting a teacher***

***Stepbystep Guide***

1. Select a Teacher From the Staff Data tab, click on a teacher to select them
2. Delete Click the "Delete" button
3. Confirm Click "Yes" in the confirmation dialog to permanently delete the teacher

***Searching for Teachers***

***Stepbystep Guide***

1. Go to Staff Data Tab Click on the "Staff Data" tab
2. Enter Search Term Type in the search box (searches names, IDs, emails, subjects, etc.)
3. View Results The table will automatically filter as you type
4. Clear Search Click "Clear" to show all teachers again

***Exporting Data***

***Stepbystep Guide***

1. Go to Staff Data Tab Click on the "Staff Data" tab
2. Click Export Data. The system will generate an Excel file with all teacher data
3. File Opens Automatically. The exported file will open in Excel
4. File Location. Files are saved in the "exports" folder within the application directory

***Importing Data***

***Preparation***

1. Prepare Your CSV File

* Use UTF8 encoding (save in Excel as "CSV UTF8")
* Include these column headers (exact names recommended)

teacher\_id\_code, salutation, first\_name, surname, email

gender, phone\_contact\_1, day\_phone, current\_address

home\_district, subject\_specialty, qualification, date\_joined

emergency\_contact\_1, emergency\_contact\_2, national\_id\_number

birth\_date, bank\_account\_number, next\_of\_kin, employment\_status

is\_active, staff\_type, position, monthly\_salary, school\_name

2. School Names Must Match

The school\_name in your CSV must exactly match schools in the database

Use the "Show Schools" button to see available school names

***Stepbystep Import***

1. Go to Staff Data Tab Click on the "Staff Data" tab
2. Click Import Data, Select your CSV file
3. Select Encoding (if needed) UTF8 is recommended
4. Choose Update Option Select whether to update existing teachers
5. Review Preview Check the data preview for any issues
6. Confirm Import Click "Import" to complete the process
7. Review Results. The system will show success/failure counts

***Working with Photos***

***Adding Photos***

* Click Select Photo. Choose an image file from your computer
* Supported Formats JPG, JPEG, PNG, GIF, BMP
* Automatic Resizing Photos are automatically resized to 300x300 pixels

***Removing Photos***

1. Click Remove. Removes the currently displayed photo

2. Save Changes. Remember to update the teacher record to save the change

***Tips and Best Practices***

***Data Entry Tips***

1. Use Consistent Formats

* Dates YYYYMMDD format works best
* Phone numbers Use consistent formatting
* Email addresses Use valid email formats

2. Required Fields

* Staff ID Code, First Name, Surname, School, and Position are required

3. Duplicate Checking

* The system checks for duplicate ID codes, emails, and national IDs
* You'll receive a warning if duplicates are detected

***Import Tips***

* Test with Small Files. Import a few records first to test your format
* Check School Names. Ensure school name match exactly
* Use UTF8 Encoding Prevents character encoding issues
* Backup First Export your current data before doing large imports

***Troubleshooting***

1. Import Fails

* Check that all required columns are present
* Verify school names match exactly
* Ensure dates are in YYYYMMDD format

2. Photos Not Displaying

* Check that the image file is not corrupted
* Try using a different image format

3. Search Not Working

* Clear the search box and try again
* Check for extra spaces in your search term

***Support***

If you encounter issues

1. Check that all required fields are filled
2. Verify your data formats are correct
3. Ensure you have the necessary permissions
4. Contact technical support if problems persist

\*This user guide covers the basic functionality of the Teacher Management System. For advanced features or specific use cases, please refer to additional documentation or contact your system administrator.\*

Absolutely! Below is a \*\*professional, step-by-step User Guide for the Students Tab\*\* in your school management system. It’s written in clear, user-friendly language and designed to be added to your existing documentation.

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# 📘 \*\*User Guide: Students Management Tab\*\*

Welcome to the \*\*Students Management\*\* section of the \*\*Winspire Learning Hub System\*\*. This guide will walk you through how to \*\*add, view, edit, import, and manage student records\*\* efficiently and securely.

---

## 📌 Overview

The \*\*Students Tab\*\* allows authorized staff (Admin, Headteacher, Registrar) to:

- ✅ Add new students

- ✅ View and edit student details

- ✅ Link parents/guardians

- ✅ Import multiple students from CSV/Excel

- ✅ Generate reports and export data

- ✅ Delete (deactivate) students

---

## 🧭 Navigation

1. Open the main application.

2. Click on the \*\*Students\*\* tab in the top menu.

3. You’ll see two sub-tabs:

- \*\*Student Form\*\* → Add or edit student records

- \*\*Students List\*\* → View, search, and manage all students

---

## ✅ Step 1: Add a New Student

### 1.1 Go to the \*\*Student Form\*\* Tab

- Click on \*\*Student Form\*\* at the top.

### 1.2 Fill in Student Details

Enter the following information:

- \*\*First Name\*\* and \*\*Surname\*\*

- \*\*Sex\*\* (Male/Female)

- \*\*Date of Birth\*\* (click the calendar icon)

- \*\*Email\*\* (optional)

- \*\*Grade Applied For\*\* (e.g., S1, S2)

- \*\*Class Year\*\*

- \*\*Enrollment Date\*\*

- \*\*Religion\*\*, \*\*Citizenship\*\*, \*\*Last School Attended\*\*

- \*\*Medical Conditions\*\* and \*\*Allergies\*\* (if any)

> 🔐 \*Note: Only users with `create\_student` permission can save new students.\*

### 1.3 Upload Photo (Optional)

- Click \*\*Upload Photo\*\* to attach a student image.

### 1.4 Save the Student

- Click \*\*Save Student\*\*.

- A confirmation message will appear: \*"Student saved successfully!"\*

---

## ✅ Step 2: Link a Parent/Guardian

After saving the student:

1. Click the \*\*+ Add Parent\*\* button.

2. In the dialog:

- Search for an existing parent by name, phone, or email

- Or enter a new parent’s details

3. Set the \*\*Relation\*\* (e.g., Father, Guardian)

4. Check roles:

- ☑️ \*\*Primary Contact\*\*

- ☑️ \*\*Fee Payer\*\*

- ☑️ \*\*Emergency Contact\*\*

5. Click \*\*Link Parent\*\*.

> ✅ The parent will appear in the \*\*Parents / Guardians\*\* list.

---

## ✅ Step 3: View All Students (Students List Tab)

1. Click on the \*\*Students List\*\* tab.

2. A table displays:

- Reg No, Name, Sex, Grade, Class Year, Status, Email, Enrollment Date, and Parent(s)

### 3.1 Search for a Student

- Type a name, Reg No, or email in the \*\*Search\*\* box.

- Press \*\*Enter\*\* – results update instantly.

### 3.2 Clear Search

- Click \*\*Clear\*\* to show all students.

---

## ✅ Step 4: Edit a Student

1. In the \*\*Students List\*\*, click on the student row.

2. Click \*\*Edit Selected\*\*.

3. The \*\*Student Form\*\* tab will open with the student’s data.

4. Make your changes.

5. Click \*\*Update Student\*\*.

> 🔐 \*Only users with `edit\_student` permission can edit.\*

---

## ✅ Step 5: View Student Details (Read-Only)

1. Select a student in the list.

2. Click \*\*View Details\*\* (right-click or via button).

3. A popup appears with:

- Full student profile

- Medical information

- Parent/guardian list

- Photo (if uploaded)

> 🔐 \*Only users with `view\_student` permission can view details.\*

---

## ✅ Step 6: Delete (Deactivate) a Student

> ⚠️ This is a \*\*soft delete\*\* – the record is preserved for compliance.

1. Select the student in the list.

2. Click \*\*Delete\*\*.

3. Confirm: \*"Are you sure you want to delete this student?"\*

4. Click \*\*Yes\*\*.

5. The student will no longer appear in active lists.

> 🔐 \*Only users with `delete\_student` permission can deactivate students.\*

---

## ✅ Step 7: Import Multiple Students

### 7.1 Prepare Your File

- Use \*\*CSV or Excel (.xlsx)\*\* format.

- Required columns:

- `first\_name`, `surname`, `sex`, `date\_of\_birth`, `grade\_applied\_for`, `regNo`

- Optional: `parent\_name`, `parent\_phone`, `parent\_email`

### 7.2 Import the Data

1. Click \*\*Import Students\*\*.

2. Browse and select your file.

3. A \*\*preview\*\* of the first 20 rows will appear.

4. Review for errors.

5. Click \*\*Start Import\*\*.

> ✅ Duplicates (by Reg No) are skipped or generate a new Reg No.

> 🔐 \*Only users with `import\_students` permission can import.\*

---

## ✅ Step 8: Generate Reports

### 8.1 Generate PDF Report

1. Select a student.

2. Click \*\*Generate PDF Report\*\*.

3. Choose save location.

4. The system creates a professional \*\*Student Profile PDF\*\* with:

- Personal info

- Medical conditions

- Parent details

5. The PDF opens automatically.

### 8.2 Export to Excel

1. Click \*\*Export to Excel\*\*.

2. Choose where to save the file.

3. Open the `.xlsx` file to view all students in spreadsheet format.

---

## ✅ Step 9: Manage Parent Links (Advanced)

### 9.1 Remove a Parent

- In the \*\*Student Details\*\* popup:

- Right-click a parent row

- Select \*\*Remove Parent\*\*

- Confirm action

- The link is removed (parent is not deleted).

> 🔐 \*Only users with `manage\_student\_parents` permission can link/unlink parents.\*

---

## 🔐 Permissions Summary

| Action | Required Permission |

|-------|---------------------|

| Add Student | `create\_student` |

| Edit Student | `edit\_student` |

| Delete Student | `delete\_student` |

| View Details | `view\_student` |

| Import Students | `import\_students` |

| Link Parents | `manage\_student\_parents` |

> 🔒 Admins and Headteachers have all permissions by default.

---

## ❓ Troubleshooting

| Issue | Solution |

|------|----------|

| "No attribute" errors | Restart the app – UI elements may not have loaded |

| Import fails | Check date format (`YYYY-MM-DD`) and required fields |

| Can’t save | Ensure Reg No is unique |

| Photo not showing | Confirm file is `.jpg`, `.png`, and under 5MB |

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## 📎 Notes

- All actions are \*\*audited\*\* and appear in the \*\*Audit Logs\*\* tab.

- Deleted students can be restored by Admin (via database).

- Always \*\*backup data\*\* before large imports.

---

You can now add this guide to your main \*\*User Manual\*\* or print it as a quick-reference sheet.

Let me know if you'd like:

- A printable PDF version

- Screenshots to include

- A version for teachers (simplified)

- A guide for the \*\*Audit Logs\*\* or \*\*Permissions\*\* tab

You're doing an \*\*outstanding job\*\* building a professional system — this guide will make it even more user-friendly! 🚀

You're absolutely right — to make the \*\*student import process smooth and error-free\*\*, users need to know exactly which \*\*column headers\*\* to include in their \*\*CSV or Excel file\*\*.

Based on your `validate\_import\_data()` method in `students\_form.py`, here are the \*\*supported column headers\*\* (case-insensitive) and the \*\*recommended ones\*\* for a successful import.

---

## ✅ Recommended Headers for Student Import File

Use this exact format for best results:

| Recommended Header | Description | Required? |

|--------------------|-------------|----------|

| `first\_name` | Student's first name | ✅ Yes |

| `surname` | Student's last name | ✅ Yes |

| `full\_name` | Full name (optional if `first\_name` and `surname` are provided) | ❌ No |

| `sex` | Male or Female | ✅ Yes |

| `date\_of\_birth` | Format: `YYYY-MM-DD` (e.g., `2010-05-15`) | ✅ Yes |

| `email` | Student's email address | ❌ No |

| `grade\_applied\_for` | e.g., S1, S2, Grade 5 | ✅ Yes |

| `class\_year` | e.g., 2024, 2025 | ✅ Yes |

| `enrollment\_date` | Format: `YYYY-MM-DD` | ✅ Yes |

| `regNo` | Registration number (must be unique) | ✅ Yes |

| `religion` | e.g., Christian, Muslim | ❌ No |

| `citizenship` | Nationality | ❌ No |

| `last\_school` | Previous school attended | ❌ No |

| `medical\_conditions` | Any medical issues | ❌ No |

| `allergies` | Known allergies | ❌ No |

| `photo\_path` | File path to photo (optional, not recommended for bulk) | ❌ No |

---

## 🧑‍🤝‍🧑 Parent Information (Optional)

You can also link a parent during import:

| Recommended Header | Description |

|--------------------|-------------|

| `parent\_name` | Full name of parent/guardian |

| `parent\_phone` | Parent's phone number |

| `parent\_email` | Parent's email |

> ✅ The system will \*\*create or reuse\*\* the parent and link them as a \*\*Guardian\*\*, with \*\*Primary Contact\*\*, \*\*Fee Payer\*\*, and \*\*Emergency Contact\*\* roles.

---

## 📄 Example CSV File

```csv

first\_name,surname,sex,date\_of\_birth,email,grade\_applied\_for,class\_year,enrollment\_date,regNo,religion,citizenship,last\_school,medical\_conditions,allergies,parent\_name,parent\_phone,parent\_email

John,Doe,Male,2010-05-15,john.doe@email.com,S1,2024,2024-01-15,STU20241234,Christian,Kenyan,Greenwood High,"Asthma, Epilepsy","Peanuts, Shellfish","Jane Doe","+254712345678,jane.doe@email.com

Jane,Smith,Female,2011-08-22,jane.smith@email.com,S1,2024,2024-01-15,STU20241235,Christian,Kenyan,St. Mary's Academy,,,"Robert Smith","+254723456789,robert.smith@email.com

```

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## 🔍 Supported Alternate Headers (Case-Insensitive)

The system is flexible and accepts these synonyms:

| Your Column Name | Mapped To |

|------------------|----------|

| `firstname`, `fname` | → `first\_name` |

| `lastname`, `lname` | → `surname` |

| `name`, `full\_name` | → `full\_name` |

| `gender` | → `sex` |

| `dob`, `birth\_date` | → `date\_of\_birth` |

| `grade`, `class` | → `grade\_applied\_for` |

| `year`, `academic\_year` | → `class\_year` |

| `enrollment`, `start\_date` | → `enrollment\_date` |

| `reg\_no`, `registration\_number` | → `regNo` |

| `medicals`, `conditions` | → `medical\_conditions` |

| `parent`, `guardian`, `guardian\_name` | → `parent\_name` |

| `parent\_contact`, `guardian\_phone` | → `parent\_phone` |

| `guardian\_email` | → `parent\_email` |

---

## 📌 Tips for Users

1. ✅ Use \*\*UTF-8 encoding\*\* for CSV files.

2. ✅ Use \*\*Excel (.xlsx)\*\* for complex data or formulas.

3. ❌ Avoid special characters in headers.

4. ✅ Use consistent date format: `YYYY-MM-DD`.

5. ✅ Ensure `regNo` is unique — duplicates will be skipped or generate a new one.

6. ✅ Preview before importing — your system already supports this!

---

## 📎 Add This to Your User Guide

You can now add this section to your \*\*Student Management User Guide\*\* under:

> ### 📥 How to Prepare Your Import File

Then paste the \*\*Recommended Headers\*\* and \*\*Example CSV\*\*.

---

Let me know if you'd like:

- A downloadable CSV template

- An Excel template with dropdowns

- A validation script for users

You're doing a great job making your system user-friendly! 🚀

# **Student Class Assignment Form tab- User Guide**

## 📋 Overview

The Student Class Assignment form allows administrators to assign students to specific classes and streams within different education levels (O-Level, A-Level).

## 🚀 Step-by-Step Guide

### 1. \*\*Accessing the Form\*\*

- Navigate to the "Student Class Assignment" section in your system

- The form opens with two tabs: "New Assignment" and "View Assignments"

### 2. \*\*Creating a New Assignment\*\*

#### \*\*Step 2.1: Select Education Level\*\*

- Click the \*\*"Education Level"\*\* dropdown (📚 icon)

- Choose either "O-Level" or "A-Level"

- \*Example: Select "O-Level"\*

#### \*\*Step 2.2: Choose Class Name\*\*

- The \*\*"Class Name"\*\* dropdown (🏫 icon) will automatically populate with available classes for the selected level

- Select the appropriate class

- \*Example: Select "S1"\*

#### \*\*Step 2.3: Select Stream\*\*

- The \*\*"Stream"\*\* dropdown (🎯 icon) will show available streams for the selected class

- Choose the desired stream

- \*Example: Select "S1 EAST"\*

- \*Note: If no streams exist, the class name will be used as the stream\*

#### \*\*Step 2.4: Choose Student\*\*

- The \*\*"Student"\*\* dropdown (👨‍🎓 icon) will show all students eligible for the selected class

- Use the search functionality to find a specific student

- Students show their current assignment status:

- `[Unassigned]` - Ready for assignment

- `[Currently in Class Stream]` - Already assigned elsewhere

- `[Already in this stream]` - Already in this specific class

#### \*\*Step 2.5: Set Academic Details\*\*

- \*\*Academic Year\*\* (📅 icon): Select the appropriate academic year

- \*\*Term\*\* (📊 icon): Choose the term (First Term, Second Term, Third Term)

- \*\*Status\*\*: Select assignment status (Promoted, Completed, Repeated)

#### \*\*Step 2.6: Additional Options\*\*

- \*\*✅ Current Assignment\*\*: Check this box if this should be the student's current class

- \*\*📝 Notes\*\*: Add any additional notes about this assignment

#### \*\*Step 2.7: Save Assignment\*\*

- Click \*\*"Save Assignment"\*\* (green button) to create the assignment

- The system will validate and prevent duplicate assignments

### 3. \*\*Managing Existing Assignments\*\*

#### \*\*Viewing All Assignments\*\*

- Switch to the \*\*"View Assignments"\*\* tab

- View all student assignments in a table format

- Columns: Student Name, Grade, Class/Stream, Term, Year, Status, Current

#### \*\*Editing an Assignment\*\*

1. Click on any row in the assignments table

2. The form will populate with the selected assignment's details

3. Make necessary changes

4. Click \*\*"Update Assignment"\*\* (blue button)

#### \*\*Deleting an Assignment\*\*

1. Select an assignment from the table

2. Click \*\*"Delete Assignment"\*\* (red button)

3. Confirm the deletion in the popup dialog

### 4. \*\*Searching and Filtering\*\*

#### \*\*Quick Search\*\*

- Use the search box in the "View Assignments" tab

- Search by: Student name, class, stream, term, year, or status

- Click \*\*"Search"\*\* or type to filter results instantly

#### \*\*Clear Search\*\*

- Click \*\*"Clear"\*\* to remove filters and show all assignments

### 5. \*\*Additional Actions\*\*

#### \*\*Refresh Data\*\*

- Click \*\*"Refresh Data"\*\* to reload all information from the database

- Useful if changes were made elsewhere in the system

#### \*\*Clear Form\*\*

- Click \*\*"Clear Form"\*\* to reset all fields to their default state

#### \*\*Export to PDF\*\*

- Click \*\*"Export to PDF"\*\* in the View Assignments tab

- Choose save location and filename

- Report includes: School header, summary statistics, and all assignment details

### 6. \*\*Special Features\*\*

#### \*\*Auto-Class Creation\*\*

- If you select a class+stream combination that doesn't exist:

- System will prompt: "Do you want to create this class?"

- Click "Yes" to automatically create the new class configuration

#### \*\*Current Assignment Handling\*\*

- When marking an assignment as "Current":

- The system automatically deactivates previous current assignments for that student

- Updates the student's `grade\_applied\_for` field

#### \*\*Duplicate Prevention\*\*

- System prevents assigning the same student to the same class+stream+term+year combination

- Shows warning message with details of existing assignment

## 🎯 Best Practices

1. \*\*Always check student's current status\*\* before assigning to avoid conflicts

2. \*\*Use the search functionality\*\* to quickly find students in large lists

3. \*\*Review existing assignments\*\* in the View tab before creating new ones

4. \*\*Export to PDF\*\* for record-keeping and reporting purposes

5. \*\*Refresh data\*\* regularly to ensure you're working with current information

## ⚠️ Troubleshooting

### \*\*Common Issues:\*\*

1. \*\*"No students found for [Class]"\*\*

- Check if students have the correct `grade\_applied\_for` value

- Verify students are marked as `is\_active = 1`

2. \*\*"Please select a valid student"\*\*

- Ensure you've selected a student from the dropdown

- Try refreshing the data

3. \*\*Duplicate assignment errors\*\*

- Check existing assignments in the View tab

- The student may already be assigned to that class/term/year

4. \*\*"No matching class found"\*\*

- The class+stream combination may need to be created

- Click "Yes" when prompted to create the class

### \*\*Quick Fixes:\*\*

- Click \*\*"Refresh Data"\*\* to reload from database

- Use \*\*"Clear Form"\*\* to reset all selections

- Check \*\*"View Assignments"\*\* tab to see current state

## 📊 Status Indicators

- \*\*Green status\*\*: Operation completed successfully

- \*\*Red status\*\*: Error occurred - check error message

- \*\*Blue status\*\*: Informational message about current state

- \*\*Assignment status\*\*: Shows count of available students and their assignment state

This user-friendly system ensures proper student class management while preventing errors and maintaining data integrity throughout the assignment process.

# Health Management System - User Guide

## 🏥 Overview

The Health Management System provides comprehensive medical care tracking with two distinct workflows:

1. \*\*Sick Bay\*\* - For immediate triage and active case management

2. \*\*Health Records\*\* - For comprehensive medical documentation and history

---

## 🚑 Sick Bay Tab - Immediate Care Management

### When to Use Sick Bay:

- ✅ Student/Staff presents with acute symptoms

- ✅ Immediate first aid required

- ✅ Ongoing monitoring needed

- ✅ Parent notification required

- ✅ Temporary observation cases

### Typical Workflow:

#### 1. New Sick Bay Visit

\*\*Click\*\*: "New Visit" button

\*\*Steps\*\*:

1. Select patient type (Student/Staff)

2. Choose specific patient from dropdown

3. Enter visit date/time (auto-filled to current)

4. Describe reason for visit (required)

5. Record initial assessment observations

6. Document vital signs:

- Temperature

- Heart rate

- Blood pressure

7. Select action taken from predefined options

8. Choose staff member handling the case

9. Click "Save Visit"

#### 2. Active Case Management

\*\*Monitor\*\*: Active cases appear in orange highlight

\*\*Actions Available\*\*:

- \*\*Discharge\*\*: When patient recovers (updates status to "Discharged")

- \*\*Notify Parent\*\*: Marks parent notification and records timestamp

- \*\*Edit\*\*: Modify visit details if needed

- \*\*Refresh\*\*: Update real-time status

#### 3. Discharge Process

\*\*Click\*\*: "Discharge" button (only for Active status cases)

\*\*System Automatically\*\*:

- Sets discharge date/time to current

- Changes status to "Discharged"

- Calculates total duration of visit

- Moves case to historical records

### Common Use Cases:

#### Case 1: Fever & Headache

1. \*\*Reason\*\*: "Fever and headache, temp 38.5°C"

2. \*\*Assessment\*\*: "Pale, complaining of headache"

3. \*\*Vitals\*\*: Temp: 38.5°C, HR: 90 bpm, BP: 110/70

4. \*\*Action\*\*: "Rest and observation"

5. \*\*Notify Parent\*\*: Yes (checkbox)

6. \*\*Monitor\*\*: Every 30 minutes until temp drops

#### Case 2: Minor Injury

1. \*\*Reason\*\*: "Scraped knee during playground activity"

2. \*\*Assessment\*\*: "Superficial abrasion, minimal bleeding"

3. \*\*Action\*\*: "First aid - cleaned and bandaged"

4. \*\*Notify Parent\*\*: Optional (depending on severity)

5. \*\*Discharge\*\*: After treatment completed

---

## 📋 Health Records Tab - Comprehensive Medical History

### When to Use Health Records:

- ✅ After sick bay visit is completed

- ✅ Routine medical check-ups

- ✅ Chronic condition management

- ✅ Medication prescriptions

- ✅ Referral to external healthcare

- ✅ Comprehensive medical documentation

### Typical Workflow:

#### 1. New Health Record

\*\*Click\*\*: "New Health Record" button

\*\*Steps\*\*:

1. Select patient type (Student/Staff)

2. Choose specific patient

3. Enter visit details (date/time)

4. Record comprehensive symptoms

5. Add diagnosis (if determined)

6. Document treatment provided

7. Prescribe medications with dosage

8. Set severity level

9. Flag follow-up requirements if needed

10. Mark hospital referral if applicable

11. Add detailed notes

12. Select handling staff member

#### 2. Record Management

\*\*Search\*\*: Use search bar to find specific records

\*\*Filter\*\*: By severity level (Mild, Moderate, Severe, Emergency)

\*\*View\*\*: Complete medical history in table format

### Common Use Cases:

#### Case 1: Post-Sick Bay Documentation

\*After sick bay visit for fever:\*

1. \*\*Symptoms\*\*: "Fever, headache, fatigue - resolved after rest"

2. \*\*Diagnosis\*\*: "Viral infection"

3. \*\*Treatment\*\*: "Rest, hydration, temperature monitoring"

4. \*\*Medication\*\*: "Paracetamol 500mg as needed"

5. \*\*Follow-up\*\*: "None required - resolved"

#### Case 2: Chronic Condition Management

1. \*\*Symptoms\*\*: "Routine asthma check-up"

2. \*\*Diagnosis\*\*: "Asthma - well controlled"

3. \*\*Treatment\*\*: "Inhaler technique review"

4. \*\*Medication\*\*: "Salbutamol inhaler - continue current dosage"

5. \*\*Follow-up\*\*: "3 months"

#### Case 3: Referral Case

1. \*\*Symptoms\*\*: "Persistent abdominal pain"

2. \*\*Diagnosis\*\*: "Requires specialist evaluation"

3. \*\*Treatment\*\*: "Referred to pediatric gastroenterologist"

4. \*\*Severity\*\*: "Moderate"

5. \*\*Follow-up\*\*: "After specialist appointment"

---

## 🔄 Integration Between Tabs

### Sick Bay → Health Records Flow:

1. Complete sick bay visit and discharge patient

2. \*\*Switch to Health Records tab\*\*

3. Click "New Health Record"

4. Most fields will auto-populate from sick bay data

5. Add comprehensive medical details

6. Save as permanent health record

### Key Differences in Data:

| Field | Sick Bay | Health Records |

|-------|----------|---------------|

| \*\*Vital Signs\*\* | Real-time monitoring | Snapshot at time of visit |

| \*\*Status\*\* | Active/Discharged/Referred | Completed (static) |

| \*\*Parent Notification\*\* | Critical feature | Optional documentation |

| \*\*Duration\*\* | Real-time calculation | Fixed time period |

| \*\*Action Focus\*\* | Immediate steps taken | Comprehensive treatment |

---

## 🎯 Best Practices

### For Sick Bay:

1. \*\*Record immediately\*\* when patient arrives

2. \*\*Update vital signs\*\* regularly for active cases

3. \*\*Notify parents early\*\* for concerning symptoms

4. \*\*Discharge promptly\*\* when case resolved

5. \*\*Use clear action descriptions\*\*

### For Health Records:

1. \*\*Complete within 24 hours\*\* of visit conclusion

2. \*\*Be comprehensive\*\* in documentation

3. \*\*Include all medications\*\* and dosages

4. \*\*Set appropriate follow-ups\*\*

5. \*\*Use consistent terminology\*\*

---

## ⚠️ Important Notes

- \*\*Sick Bay\*\* is for \*\*active case management\*\*

- \*\*Health Records\*\* is for \*\*permanent documentation\*\*

- Always complete \*\*Sick Bay → Health Records\*\* workflow

- Use search/filters to manage large data sets

- Regular refreshes ensure data accuracy

---

## 🆘 Emergency Procedures

For emergency cases (Severe/Emergency severity):

1. Provide immediate first aid in Sick Bay

2. Notify parents immediately

3. Refer to hospital if needed

4. Document comprehensively in both tabs

5. Flag for administrative follow-up

This integrated approach ensures both immediate care needs and comprehensive medical history management are handled efficiently!

**# 📧 CBCentra Email System - Complete User Guide**

## 1. Initial Setup

### For Gmail Users (Recommended):

1. \*\*Enable 2-Factor Authentication:\*\*

- Go to Google Account → Security → 2-Step Verification

- Follow the setup instructions

2. \*\*Generate App Password:\*\*

- Visit: https://myaccount.google.com/apppasswords

- Select "Mail" → "Windows Computer" → Generate

- \*\*Copy the 16-character password\*\*

3. \*\*Configure in CBCentra:\*\*

- Click your profile picture → "Email Configuration"

- Select "Gmail" as provider

- Enter: `beneky14@gmail.com`

- Paste the \*\*App Password\*\* (not your regular password)

- Set sender name: `CBCentra School System`

- Click "Test Connection" to verify

- Save configuration

### For Other Email Providers:

- \*\*Outlook/Hotmail:\*\* Use app password from Microsoft account

- \*\*Yahoo:\*\* Enable 2FA and generate app password

- \*\*Custom SMTP:\*\* Enter your server details manually

## 2. Sending Emails

### Quick Send Options:

1. \*\*From Students/Teachers/Parents Forms:\*\*

- Right-click on any record → "Send Email"

- Select multiple records → Click "Email Selected" in ribbon

2. \*\*Bulk Email:\*\*

- Go to desired form (Students, Teachers, etc.)

- Select multiple records

- Click "Email" button in ribbon

- Compose message → Send to all selected

3. \*\*Manual Composition:\*\*

- Click profile picture → "Compose Email"

- Or use ribbon email buttons

### Email Templates:

The system includes pre-built templates:

- Assignment notifications

- Fee reminders

- Attendance reports

- Parent communications

- Staff announcements

## 3. Receiving & Replying to Emails

### Automatic Monitoring:

- System checks for new emails every 5 minutes

- Replies to your sent emails are automatically detected

- Notifications appear in the notification center (bell icon)

### Notification Center:

- Click the notification badge (red counter) near your profile

- View all email conversations

- Reply directly from within the system

- Mark messages as read/unread

### Replying to Emails:

1. Click notification badge

2. Select conversation

3. Type reply in bottom text area

4. Click "Send Reply"

5. System maintains full conversation history

## 4. Advanced Features

### File Attachments:

- Attach files up to 25MB

- Supported formats: PDF, Word, Excel, Images

- Multiple attachments per email

### HTML Formatting:

- Rich text editor for formatted emails

- Insert tables, images, links

- Professional email templates

### Bulk Operations:

- Send to entire classes/groups

- Schedule emails (future enhancement)

- Email tracking (open rates, clicks)

## 5. Troubleshooting

### Common Issues:

\*\*❌ "Authentication Failed"\*\*

- Use App Password, not regular password

- Ensure 2FA is enabled

- Check email/password spelling

\*\*❌ "Connection Failed"\*\*

- Check internet connection

- Verify SMTP settings:

- Gmail: smtp.gmail.com:587

- Outlook: smtp-mail.outlook.com:587

\*\*❌ "Emails Not Sending"\*\*

- Check email configuration

- Verify recipient emails are valid

- Check attachment size limits

### Testing Configuration:

1. Always use "Test Connection" button first

2. Send test email to yourself

3. Check spam folder if test doesn't arrive

## 6. Security & Privacy

### Data Protection:

- Email passwords encrypted in database

- No email content stored unencrypted

- Secure SMTP/IMAP connections

### Best Practices:

- Regularly update app passwords

- Don't share configuration details

- Use strong, unique passwords

- Monitor sent email logs

## 7. Support

### Getting Help:

1. Check this guide first

2. Use "Test Connection" feature

3. Verify provider settings match:

- \*\*Gmail:\*\* smtp.gmail.com:587 (TLS)

- \*\*Outlook:\*\* smtp-mail.outlook.com:587 (TLS)

- \*\*Yahoo:\*\* smtp.mail.yahoo.com:587 (TLS)

### Emergency Reset:

If configuration gets corrupted:

1. Go to profile menu → "Email Configuration"

2. Delete existing settings

3. Re-enter all details

4. Test connection

---

## Quick Start Cheat Sheet:

1. \*\*Enable 2FA\*\* on your email account

2. \*\*Generate App Password\*\* from provider

3. \*\*Configure\*\* in CBCentra → Profile → Email Config

4. \*\*Test\*\* with "Test Connection" button

5. \*\*Start sending\*\* from any form or compose dialog

The system is now ready to handle all your school communication needs! 🎉

Would you like me to help you test the configuration or set up any specific email templates for your school?