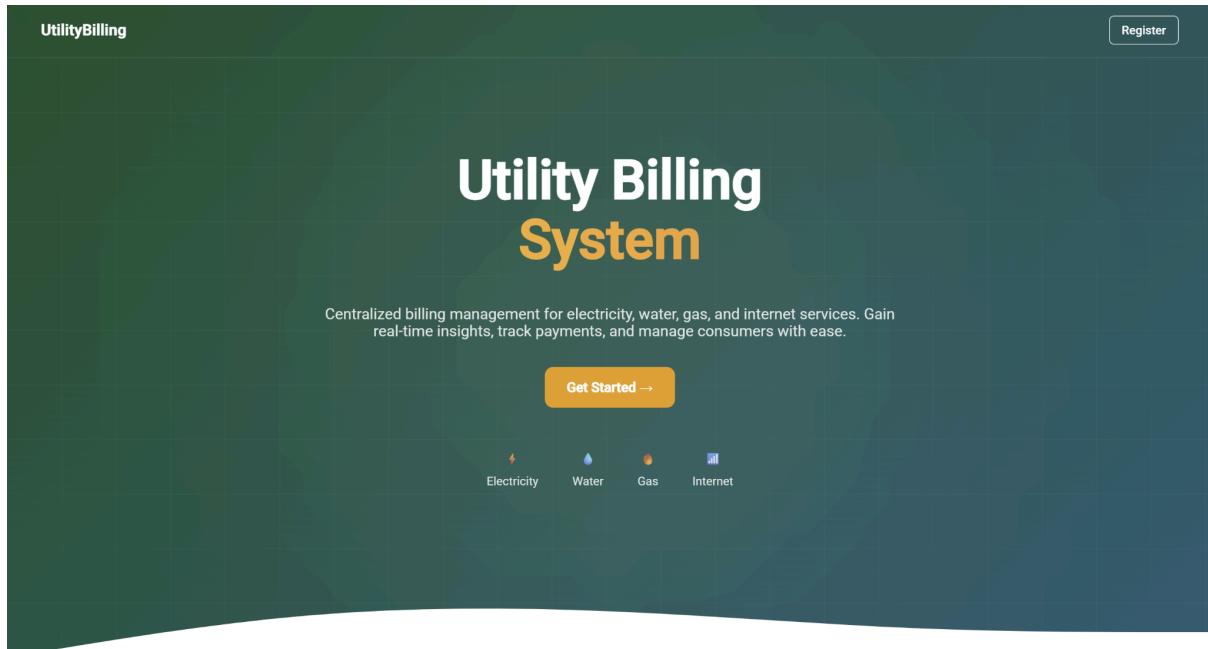


## Home page:

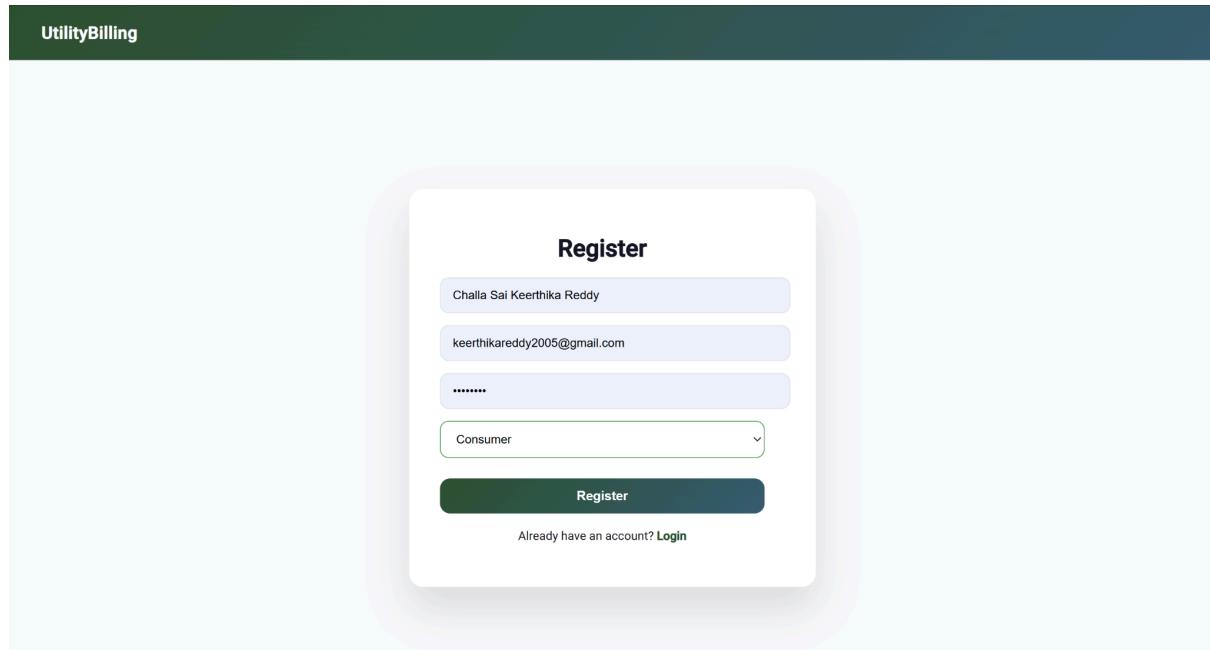


## Comprehensive Features

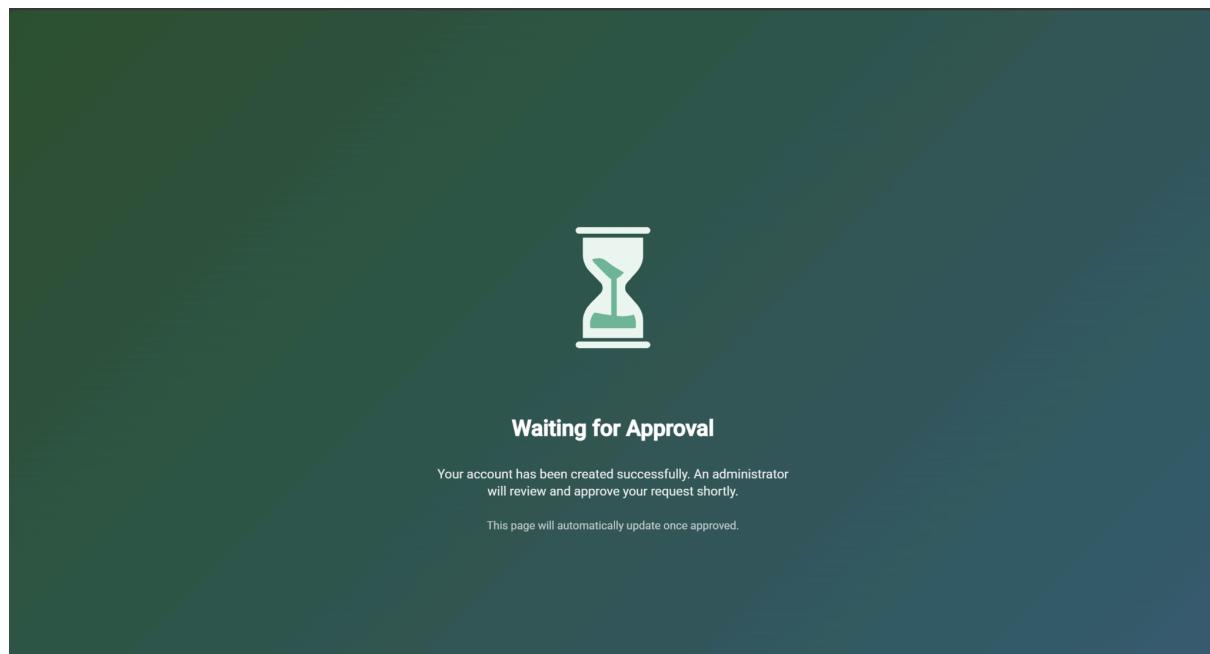
Everything you need to manage utility billing operations efficiently and accurately.

 <b>Consumer Management</b> Comprehensive consumer profiles with utility connections and tariff plans.	 <b>Meter Readings</b> Accurate monthly meter readings with validation and auto calculation.	 <b>Automated Billing</b> Auto-generate bills using tariffs, fixed charges, and taxes.	 <b>Payment Tracking</b> Track payments, outstanding balances, and history.
 <b>Analytics &amp; Reports</b> Revenue, consumption, and outstanding analysis.	 <b>Notifications</b> Automated alerts and payment reminders.	 <b>Role-Based Access</b> Secure RBAC for Admin, Billing, Accounts & Consumers.	 <b>Bill Lifecycle</b> Generated → Due → Paid → Overdue tracking.

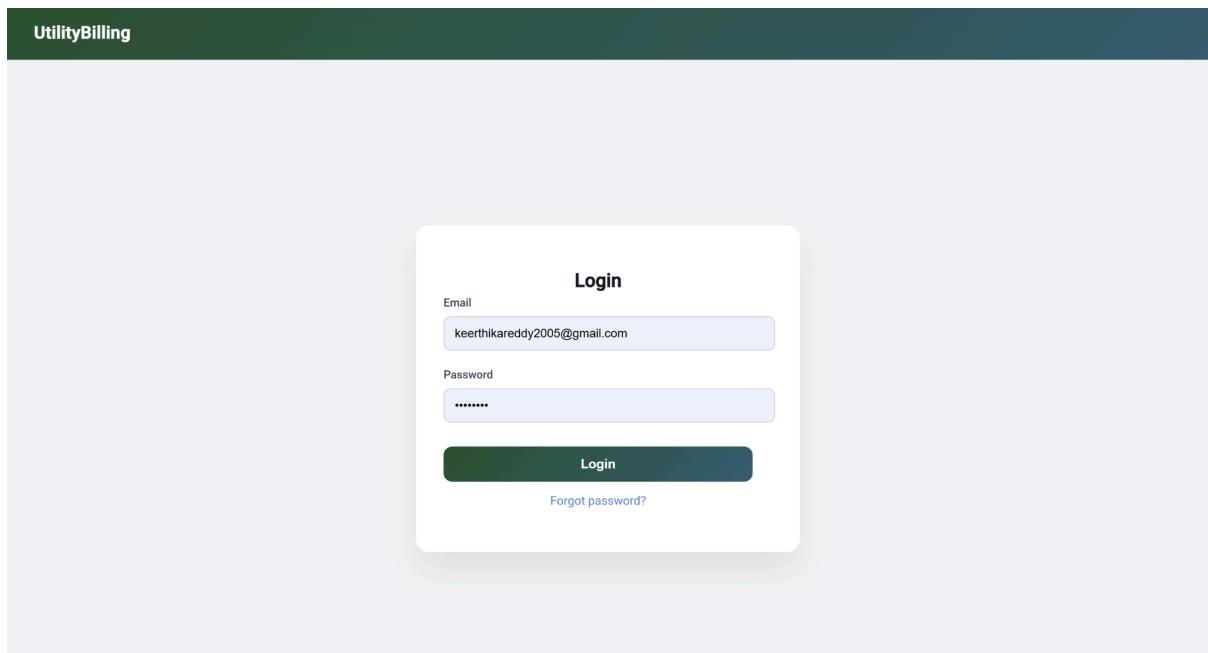
## Registration page:



## Waiting for admin approval page:



## Login page:



## Consumer portal

## Home page:

The screenshot shows the consumer portal's home page. On the left is a dark sidebar with icons for home, connection, and settings. The main area features a large, rounded rectangle with a "Welcome to UtilityBill" heading, a subtext "Manage your utility connections, tariffs, and billing — all from one smart dashboard.", and a "Create New Connection" button. Below this is a section titled "Available Tariff Plans" with a subtext "Choose a plan that best fits your consumption needs". Four tariff plans are listed in boxes: "Residential Flat" (Simple pricing for homes, ₹5 / unit, ₹50 fixed charge), "Residential Slab" (Tiered pricing for high usage, Slab based, ₹75 fixed charge), "Commercial Standard" (For shops & offices, ₹8 / unit, ₹150 fixed charge), and "Government Subsidized" (Low-income / agriculture, ₹2 / unit, No fixed charge). At the bottom right, a green success message box says "Login successful" and "Close".

## Add connections page:

UtilityBill

Home

New Connection

My Bills

Logout

### Request New Connection

Choose a utility and tariff plan. Your request will be reviewed by an administrator.

Utility

Select utility

Tariff Plan

Select tariff

Submit Request

### Your Connections

Utility	Tariff	Status
6953a90f6911e8748c0eeaed	RESIDENTIAL_FLAT	ACTIVE
6957471eaf2ec85b7186b2b0	RESIDENTIAL_STANDARD	ACTIVE
695b5333ce33a50f1e141946	COMMERCIAL_STANDARD	ACTIVE

## Previous payments/bills page:

UtilityBill

Home

New Connection

My Bills

Logout

### Bills & Payments

Manage and pay your utility bills securely

Water PAID

Billing Cycle: Jan 2026  
Units: 1500  
₹ 9075  
✓ Payment Completed

Water PAID

Billing Cycle: Jan 2026  
Units: 1250  
₹ 6300  
✓ Payment Completed

Gas PAID

Billing Cycle: Feb 2026  
Units: 100  
₹ 675  
✓ Payment Completed

Gas OVERDUE

Billing Cycle: Feb 2026  
Units: 100  
₹ 675  
Pay Now

Internet GENERATED

Billing Cycle: Jan 2026  
Units: 1000  
₹ 8150  
Pay Now

Electricity PAID

Billing Cycle: Jan 2026  
Units: 1000  
₹ 2000  
✓ Payment Completed

## Payment page:

The screenshot shows a mobile application interface for "UtilityBill".

**Left Sidebar (Dark Mode):**

- UtilityBill
- Home
- New Connection
- My Bills

**Top Center:**

### Pay Your Utility Bill

Fast, secure, OTP-based payment for your utility services

**Form Fields:**

- Bill ID: 695f46b80a47a9110aec81e4
- Amount to Pay: ₹ 8150

**Buttons:**

- Send OTP

**Footer:**

Visa Mastercard UPI

**Right Side (Dark Box):**

#### Quick & Secure

Complete your payment safely using OTP verification.

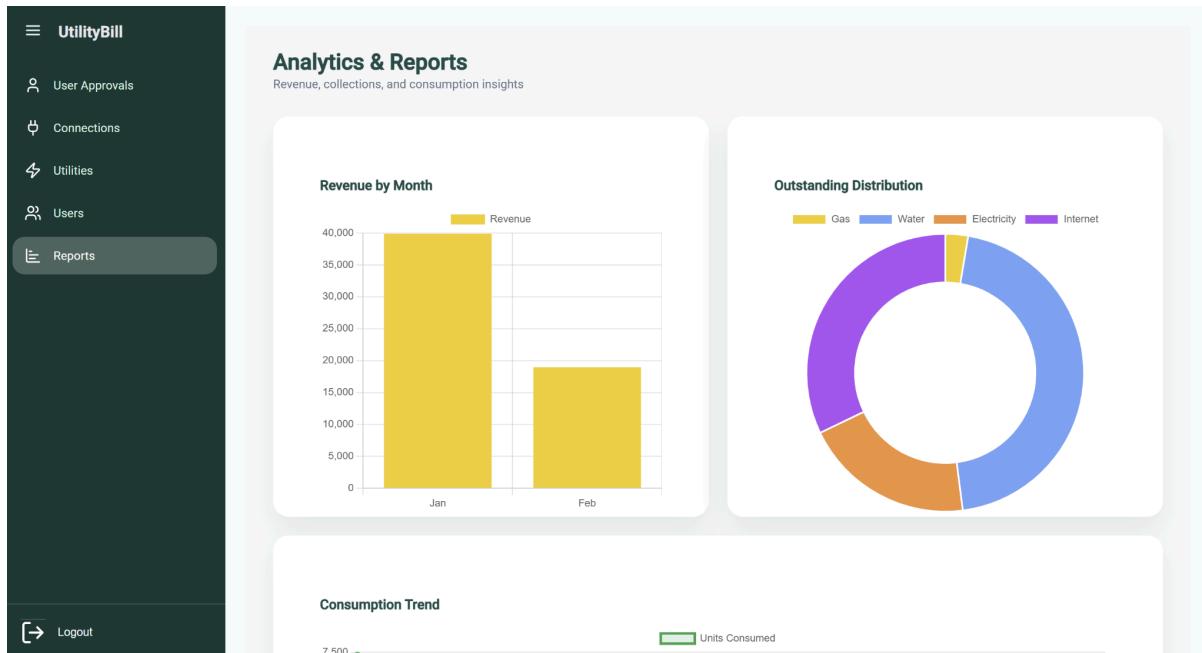
- ✓ Instant confirmation
- ✓ OTP protected payment
- ✓ No hidden charges
- ✓ High-grade security

**Bottom Left:**

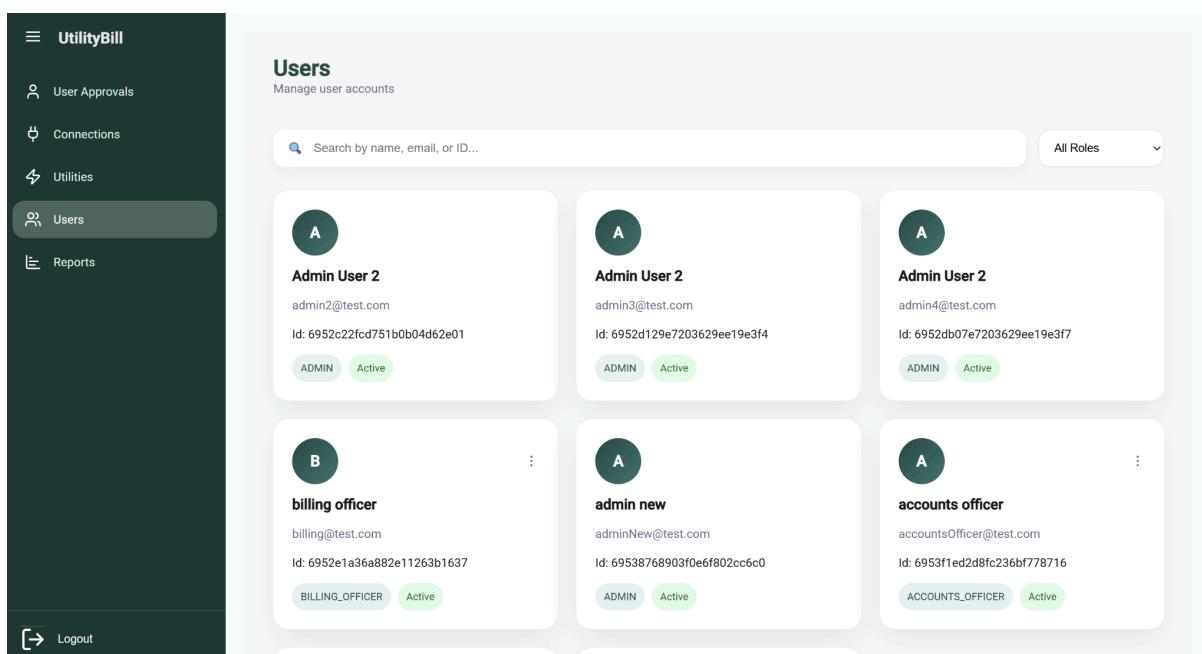
[Logout]

## Admin portal

### Dashboard:



### Manage all Users:



## Pagination:

The screenshot shows a dark-themed dashboard for 'UtilityBill'. On the left, a sidebar menu includes 'User Approvals', 'Connections', 'Utilities' (which is selected), and 'Users'. Below the sidebar is a 'Logout' button. The main area displays a grid of user profiles. Each profile card contains a user icon, a name, an email address, a unique ID, and two status buttons: 'CONSUMER' and 'Active'. The profiles are arranged in two rows of three. At the bottom of the main area, there is a navigation bar with 'Previous', 'Page 2 of 2', and 'Next' buttons.

User	Name	Email	ID	Status
C	Challa Sai Keerthika Reddy	keerthikareddy2005@gmail.com	Id: 695e3abb515918698792f000	CONSUMER Active
K	Keeks	keerthikareddy2001@gmail.com	Id: 695e5c38515918698792f003	CONSUMER Active
B	bhavana	bhavana@gmail.com	Id: 695e9591b1b28b41a027fef3	CONSUMER Active
A	anu	bhava@gmail.com	Id: 695f403155409718ff6ed175	CONSUMER Active
R	ridhima	ridhima11111111@gmail.com	Id: 695f4c9755409718ff6ed176	CONSUMER Active
C	Challa Sai Keerthika Reddy	22071a66e1@vnrvjet.in	Id: 695f569255409718ff6ed177	CONSUMER Active

## Add new Utility:

The screenshot shows the 'Utilities' section of the UtilityBill application. The sidebar menu is identical to the previous screenshot, with 'Utilities' selected. The main area features a title 'Utilities' and a subtitle 'Manage available utility services in the system'. Below this is a form titled 'Add New Utility' with fields for 'Utility name' and 'Short description (optional)'. A large 'Add Utility' button is centered below the input fields. At the bottom, there are four service cards: 'Water' (Water supply), 'Gas' (Provide gas), 'Electricity' (Provide Electricity), and 'Internet' (Wireless Internet). Each card has a red 'X' icon in the top right corner.

Service	Description
Water	Water supply
Gas	Provide gas
Electricity	Provide Electricity
Internet	Wireless Internet

## Consumer approval page:

The screenshot shows a mobile application interface for 'UtilityBill'. The left sidebar contains navigation links: 'User Approvals' (selected), 'Connections', 'Utilities', 'Users', 'Reports', and 'Logout'. The main content area is titled 'User Approval Requests' with the sub-instruction 'Approve or reject newly registered users'. A button 'Load Pending Users' is present. Below this, a card displays a user profile: 'bhavana' (represented by a circular icon with 'B') and 'bhav@gmail.com'. To the right of the name is a yellow circular badge with the word 'PENDING'. At the bottom of the card are two buttons: 'Approve' (dark green) and 'Disapprove' (red).

## Accounts officer portal

## Dashboard:

The screenshot shows a mobile application interface for 'UtilityBill'. The left sidebar contains navigation links: 'Dashboard' (selected), 'Bills', 'Payments', and 'Logout'. The main content area is titled 'Accounts Dashboard' with the subtitle 'Overview of revenue, payments, and overdue bills'. It features four summary cards: 'Total Bills: 11' (light blue), 'Paid Bills: 6' (light green), 'Overdue Bills: 2' (light red), and 'Total Revenue: ₹ 33475' (light purple). Below these cards is a chart titled 'Payments vs Overdue Trend' showing a bar chart with two bars: a tall green bar for 'Paid Bills' and a shorter red bar for 'Overdue Bills'.

## Manage bills/ Overdue payments:

The UtilityBill app interface displays a dashboard titled "Bills Overview". It shows a grid of bill details for different consumers. The columns include Consumer ID, Amount, and status indicators (PAID, OVERDUE, GENERATED). A "Send Reminder" button is present for the overdue bills.

Consumer ID	Amount	Status
695e3abb515918698792f000	₹ 9075	PAID
695e3abb515918698792f000	₹ 6300	PAID
695e3abb515918698792f000	₹ 675	PAID
695e3abb515918698792f000	₹ 675	OVERDUE
695e9591b1b28b41a027fef3	₹ 7550	PAID
695e9591b1b28b41a027fef3	₹ 7875	PAID
695e9591b1b28b41a027fef3	₹ 9750	GENERATED
695e9591b1b28b41a027fef3	₹ 1750	OVERDUE
695f261f8a8610193b97d8b2	₹ 5050	GENERATED

## Overdue reminder mail:

An "Overdue Utility Bill Reminder" email is shown in the Gmail inbox. The email is from "keerthikareddy2005@gmail.com" to the recipient. It informs the customer that their utility bill is overdue and provides the bill ID and amount due. It also encourages early payment to avoid penalties and signs off from the Utility Billing Team.

Overdue Utility Bill Reminder Inbox

Summarise this email

keerthikareddy2005@gmail.com to me ▾  
14:48 (0 minutes ago)

Dear Customer,

Your utility bill is overdue.

Bill ID: 695e3fc878ad406c79202361  
Amount Due: 675.00

Please make the payment at the earliest to avoid penalties.

Regards,  
Utility Billing Team

--  
This email has been checked for viruses by Avast antivirus software.  
[www.avast.com](http://www.avast.com)

## View all payments:

UtilityBill

- Dashboard
- Bills
- Payments

Logout

### Payments

All completed and pending consumer payments

Payment ID	Bill ID	Amount	Method	Status
695e3c1f	695e3be2	₹ 9075	OTP	COMPLETED
695e3c91	695e3bff	₹ 6300	OTP	COMPLETED
695e3d1f	695e3d08	₹ 675	OTP	COMPLETED
695e96d4	695e9680	₹ 7550	OTP	COMPLETED
695e96ec	695e96a7	₹ 7875	OTP	COMPLETED
695f57a3	695f576d	₹ 2000	OTP	COMPLETED

## Billing officer portal

## Dashboard:

UtilityBill

- Reports
- Connections
- Meter Readings
- Generate Bills

Logout

### Bills & Analytics

Billing officer operational dashboard

Total Bills **11**

Pending **3**

Overdue **2**

Total Consumption **10150 units**

#### Consumption Trend

Units Consumed

2025-01-26, 2025-01-20, 2025-02-06, 2025-02-07, 2025-01-28, 2025-02-05, 2025-02-02, 2025-01-02, 2025-01-15, 2025-01-22, 2025-01-20

#### Utility-wise Consumption

Water, Gas, Internet, Electricity

## All generated bills:

The screenshot shows the 'Generated Bills' section of the UtilityBill application. On the left is a dark sidebar with navigation links: Reports, Connections, Meter Readings, Generate Bills, and Logout. The main area has a light gray header 'Generated Bills'. Below it is a table with columns: Bill ID, Consumer, Utility, Units, Amount, Cycle, and Status. The table contains 12 rows of bill data. Most bills are marked as 'PAID' (green), except for one in January 2026 which is 'OVERDUE' (red).

Bill ID	Consumer	Utility	Units	Amount	Cycle	Status
695e3be2	Challa Sai Keerthika Reddy	Water	1500	₹ 9075	Jan 2026	PAID
695e3bff	Challa Sai Keerthika Reddy	Water	1250	₹ 6300	Jan 2026	PAID
695e3d08	Challa Sai Keerthika Reddy	Gas	100	₹ 675	Feb 2026	PAID
695e3fc8	Challa Sai Keerthika Reddy	Gas	100	₹ 675	Feb 2026	OVERDUE
695e9680	bhavana	Internet	1500	₹ 7550	Jan 2026	PAID
695e96a7	bhavana	Electricity	1300	₹ 7875	Feb 2026	PAID
695e98dc	bhavana	Water	1200	₹ 9750	Feb 2026	GENERATED
695e9907	bhavana	Water	200	₹ 1750	Jan 2026	OVERDUE
695f279d	ridhima	Electricity	1000	₹ 5050	Jan 2026	GENERATED
695f46b8	Challa Sai Keerthika Reddy	Internet	1000	₹ 8150	Jan 2026	GENERATED
695f576d	Challa Sai Keerthika Reddy	Electricity	1000	₹ 2000	Jan 2026	PAID

## Connections:

The screenshot shows the 'Connections' section of the UtilityBill application. The sidebar is identical to the previous screenshot. The main area has a light gray header 'Connections' with the sub-instruction 'Select a connection to add meter readings'. Below is a grid of four connection cards, each with a consumer profile picture and name, consumer ID, utility type, and tariff details. Each card has a green 'Add Meter Reading' button at the bottom.

Consumer ID	Utility
695e3abb515918698792f000	Water
6953a90f6911e8748c0eeaed	RESIDENTIAL_FLAT

Consumer ID	Utility
695e9591b1b28b41a027fef3	Electricity
695b5324ce33a50f1e141945	RESIDENTIAL_STANDARD

## Add meter reading:

The screenshot shows the 'UtilityBill' application interface. On the left is a dark sidebar with navigation links: 'Reports', 'Connections', 'Meter Readings' (which is highlighted), and 'Generate Bills'. At the bottom of the sidebar is a 'Logout' button. The main content area has a light background. At the top, it says 'Meter Readings' and 'Enter and manage monthly meter readings'. Below this is a dark header bar with 'Current Month' and 'Jan 2026'. The main form is titled 'Add New Reading' and contains fields for 'Connection ID', 'Consumer ID', 'Utility ID', and a date input ('dd-mm-yyyy'). There are also buttons for '+ New Reading' and 'Load Readings'. Below this is a table titled 'Meter Readings' with columns for Connection ID, Consumer ID, Utility ID, Reading, and Date. A search bar at the top of the table says 'Search by connection ID...'. The bottom right corner of the main content area has a light gray rounded rectangle.

## Generate bill:

The screenshot shows the 'UtilityBill' application interface. The sidebar is identical to the previous screenshot, with 'Generate Bills' being the active link. The main content area has a light background. At the top, it says 'Generate Bill' and 'Generate utility bill for a consumer connection'. Below this is a form titled 'Billing Details' with fields for 'Connection ID' (containing placeholder text 'Enter connection ID') and 'Billing Cycle' (containing a date input 'dd-mm-yyyy'). At the bottom of the form is a large dark green button labeled 'Generate Bill'.

## Circuit breaker:

The screenshot shows the API Network interface with the following details:

- Left Sidebar:** Keerthika Reddy's Workspace, Collections, Environments, History, Flows, CollegeApplication - spring security, Docker-microservices, file-upload.
- Top Bar:** Home, Workspaces, API Network, Upgrade.
- Central Area:** HTTP Capstone / post generate bill, POST http://localhost:9999/bills/generate, Headers (9), Body (JSON), Cookies, Schema, Beautify.
- Body Content:**

```
1 {
2   "connectionId": "695908be05cd466e99111c91",
3   "billingCycle": "2025-01-01"
4 }
```
- Response Preview:** 503 Service Unavailable, 174 ms, 564 B, Body: 1 Meter service is unavailable. Please try again later.
- Bottom Navigation:** Cloud View, Find and replace, Console, Terminal, Runner, Start Proxy, Cookies, Vault, Trash.

## Jacoco Reports:

