

# COMMUNICATION TEMPLATE REPOSITORY APPLICATION

Team Name: BugCurse

Institute : St. Thomas' College of Engineering  
and Technology, Kolkata, India

# Team members details

<b>Team Name</b>	<b>Team BugCurse</b>	
<b>Institute</b>	<b>St. Thomas' College of Engineering and Technology, Kolkata, India</b>	
<b>Team Members</b>	<b>1 (Leader)</b>	<b>2</b>
<b>Name</b>	<b>Nabarun Kar</b>	<b>Sounav Saha</b>
<b>Batch</b>	<b>2019-2023</b>	<b>2019-2023</b>

# Deliverables

- Build an application for creating letters/document templates as well as editing any existing templates.
- The application should also include a maker-checker mechanism, i.e., after the creation of the template, submit it to internal departments (legal, marketing, compliance, business head) for approval.
- Post the approval, the template would be available for usage/consumption
- The template should have placeholders provisioned to include run-time attributes related to the customer. This would include:
  - Customer Name
  - Loan Agreement Number
  - Asset Details
  - Loan Details
  - Loan Schedule Details
  - Other information like Guarantor / Insurance / Credit Shield, etc.
- The application should have the ability to invoke these templates through APIs to create an actual document which can then be e-mailed or downloaded
- Provide support for Vernacular templates for at least two languages. Any two languages out of Hindi, Marathi, Tamil, Bengali, Kannada, Telugu

# Use-cases

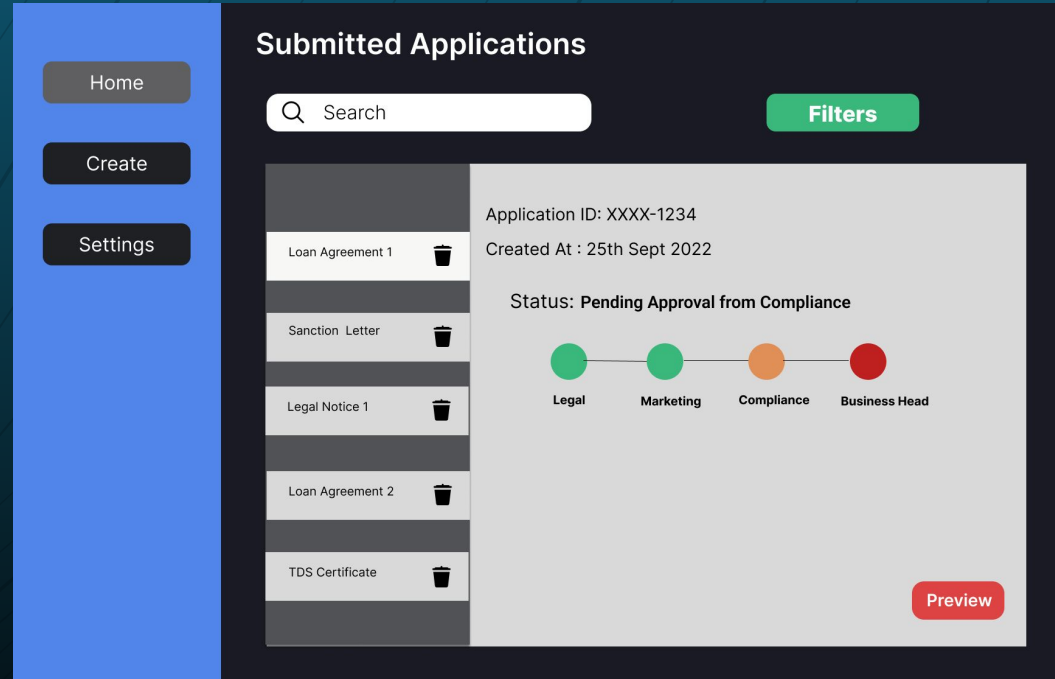
For every company, this will reduce the reliance on hard copies and provide easy access to customers and channel partners. There will also be an online record of when the last change was done and the approvers of the content and template.

With the regular guideline changes from the central bank, having an online template repository also helps to ensure that the company can quickly make the changes in the documents and it will help reduce costs, rework, and effort.

# PROPOSED SOLUTION

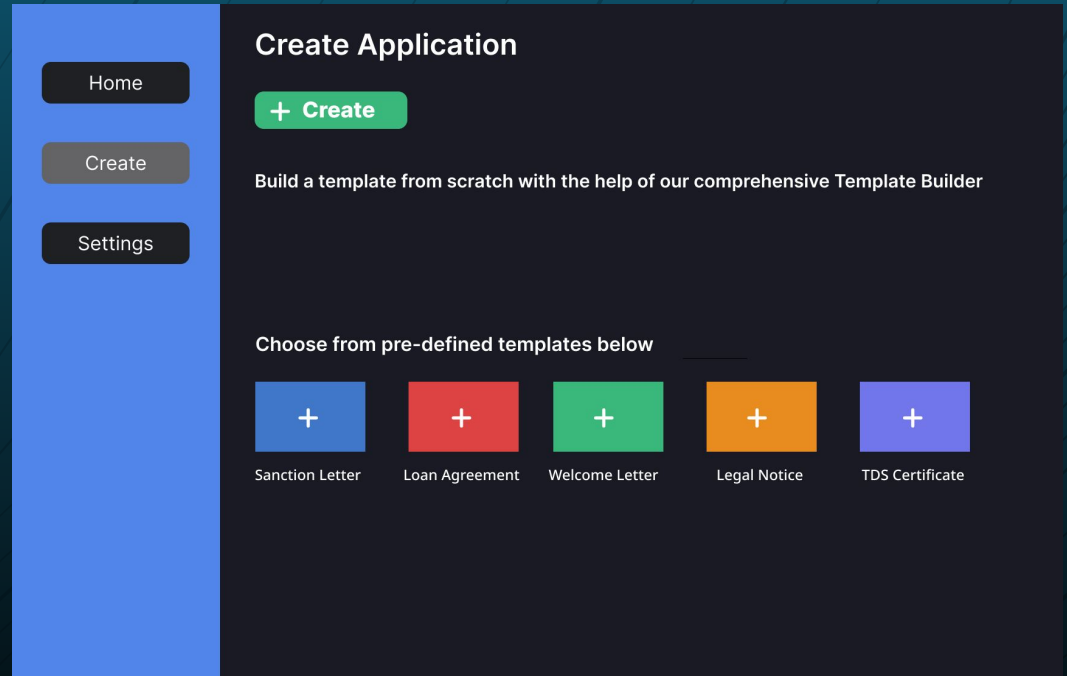
The software is going to have a number of pages to solve the problem at hand. At the **creators'** end,

- The homepage will contain all the letters drawn up by this specific user. The user can click on any of these letters to view the approval status of that letter along with the application id and the date the letter was created.



From the navigation bar, the user can navigate to the CREATE section of our application where they can draft the letter they want to create.

- First, they would need to choose from one of the several available pre-defined templates or create a template of their own if they have the necessary permissions.



- Upon choosing a template, they will be taken to the next page where they will find that the letter is complete with the exception of all the user-specific details.
- At this stage, the **creator** needs to enter the user specific details in the fields as mentioned in the screen to complete the letter.
- Once all the details are finalized, the **creator** has to click on preview to view a preview of the entire letter before sending it for approval. It is sent out to the appropriate department automatically according to the pre-set rules.

The screenshot displays a web application interface for creating a loan application. On the left is a blue sidebar with three buttons: 'Home', 'Create', and 'Settings'. The main area is titled 'Create Application' and features a 'Preview' button in the top right. Below the title is a form with a header bar containing text formatting options (B, I, U), a font size selector (12), and a 'Change Language' button. The form body contains a letter template with the following text:

ABC Company  
12 XYZ Street  
Kolkata, West Bengal, 700014  
28th September, 2022

Aditya Sen  
5, Lake Street  
Kolkata, West Bengal, 700005

Dear Aditya,

This letter is made in reference to your loan application number [loan number] dated [date of loan application]. Based on the information provided in your loan application, we are pleased to inform you of the approval of your loan based on the following terms and conditions:

Loan amount of Rs 50!

Regards,  
[Your Name and Signature]

On the right side of the form is a vertical list of buttons: 'Customer Details', 'Loan Agreement No', 'Asset Details', 'Loan Details' (highlighted with a red border and an upward-pointing arrow), 'Loan Schedule Details', and 'Credit Shields'. A label 'USER SPECIFIC DETAILS' with a line points to the 'Loan Details' button.

USER  
SPECIFIC  
DETAILS

# THE PREVIEW PAGE

Home

Create

Settings

## Preview Application

Go Back

Send for Approval

ABC Company  
12 XYZ Street  
Kolkata, West Bengal, 700014  
28th September, 2022

Aditya Sen  
5, Lake Street  
Kolkata, West Bengal, 700005

Dear Aditya,

This letter is made in reference to your loan application number [loan number] dated [date of loan application]. Based on the information provided in your loan application, we are pleased to inform you of the approval of your loan based on the following terms and conditions:

Loan amount of Rs 5000000

Regards,  
[Your Name and Signature]



**Creators** who have the necessary permissions will also be able to create their own templates by clicking on the create button. This section comes fully equipped with a powerful text editor for making text-size,font,style changes if required. This will ensure the creators can create the letters in the language they are comfortable in and send it to a customer with a different language preference without any hassle.

The screenshot displays the 'Create Template' interface. On the left is a blue sidebar with buttons for 'Home', 'Create', and 'Settings'. The main area has a dark header with 'Create Template' and a 'Preview' button. Below the header is a text editor with a toolbar containing bold (B), italic (I), underline (U), font size (12), and a list icon. A 'Change Language' button is in the top right of the editor. The editor contains a loan letter template with placeholders for company and customer details, a salutation, a body paragraph, and a closing. On the right is a sidebar with buttons for 'Customer Details', 'Loan Agreement No', 'Asset Details', 'Loan Details', 'Loan Schedule Details', and 'Credit Shields'. Annotations with arrows point to the 'Change Language' button (labeled 'LANGUAGE'), the 'Asset Details' button (labeled 'USER SPECIFIC DETAILS'), and the main text editor area (labeled 'TEXT EDITOR').

**Create Template**

Home

Create

Settings

Preview

B I U 12 Font Size

Change Language

Customer Details

Loan Agreement No

Asset Details

Loan Details

Loan Schedule Details

Credit Shields

LANGUAGE

USER SPECIFIC DETAILS

TEXT EDITOR

[Name of Lending Company]  
[Address of Lending Company]  
[City,State,Zip Code]  
[Date]

[Name of Lendee]  
[Address of Lendee]  
[City,State,Zip Code]

Dear [Name of Lendee],

This letter is made in reference to your loan application number [loan number] dated [date of loan application]. Based on the information provided in your loan application, we are pleased to inform you of the approval of your loan based on the following terms and conditions:

Loan amount of Rs [amount]

Regards,  
[Your Name and Signature]

The **approvers** will be able to see all the letters that are pending approval from their end. They have the choice to either approve or reject the letter drawn up. If the letter is approved, the **creator** will be able to publish it or if the letter needs further approval from a different department(s) it gets sent to the next one automatically. Otherwise, the approver has to provide reasons for rejection.

Home

Create

Settings

Preview Application

Go Back

Approve

Reject

Add comments

[Name of Lending Company]  
[Address of Lending Company]  
[City,State,Zip Code]  
[Date]  
  
[Name of Lendee]  
[Address of Lendee]  
[City,State,Zip Code]  
  
Dear [Name of Lendee],  
  
This letter is made in reference to your loan application number [loan number] dated [date of loan application]. Based on the information provided in your loan application, we are pleased to inform you of the approval of your loan based on the following terms and conditions:  
  
Loan amount of Rs [amount]  
  
  
Regards,  
[Your Name and Signature]

When a letter gets fully approved, the **creator** will be able to publish it(download the letter in PDF format or choose the email feature and send it to the concerned person).

Hitting download fires an **API** call which converts the which converts the HTML string generated on the text editor into a downloadable PDF.

There will be a feature to dynamically change the language at any point before it has been sent for approval for the **creator** of the letter.

# A FULLY APPROVED APPLICATION

Home

Create

Settings

## Submitted Applications

Q Search

Filters

Loan Agreement 1

Sanction Letter 1

Legal Notice 1

Loan Agreement 2

TDS Certificate

Application ID: XXXX-1234

Created At : 25th Sept 2022

Status: **Approved**

Legal

Marketing

Compliance

Business Head

Publish

Preview

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# Bonus Features

- Enabling Digital Signature thereby capturing customer's consent
- Secure the document access through password protection by using the [Encryption API \(Java\)](#). We can encrypt the PDF document by invoking the EncryptionServiceClient object's encryptPDFUsingPassword method. This method returns a returns a com.adobe.idp.Document object that contains a password-encrypted PDF document.
- A reminder feature through which a reminder is sent out to the concerned personnel when a letter has not been approved or processed for approval within a pre-defined number of days.