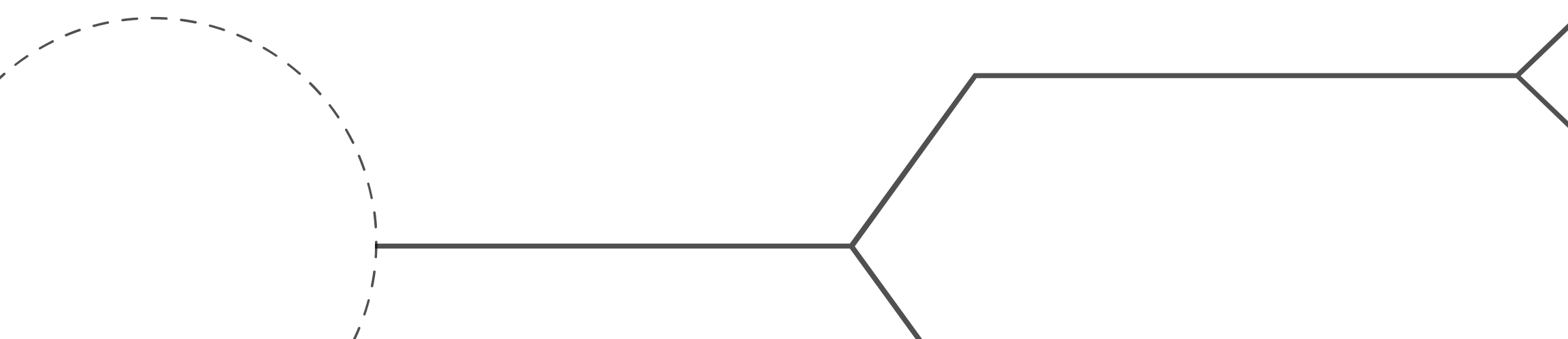# PROJECT: *LIBELLO*

## STRUCTURED PROGRAMMING II

Course Code: CSE 4202

**Submitted to**

Mohammad Ishrak Abedin, Lecturer, CSE

Date: 22/04/2022

# The Team Introduction



**Md. Zunaid-ul-Alam**

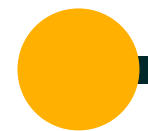ID: 200041218



**Shams Farhan Ivan**

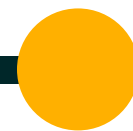ID: 200041242



**Mir Md Inzamam**

ID: 200041240

# Project Overview

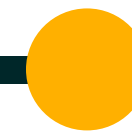A Management Based Application

## Main Features

**The Diary**

Note down the highlights of your day

**The To-Do List**

Sort out your tasks ahead of time

**The Password Manager**

Conveniently store your passwords

# Multi-User Functionality

To make the program accessible to multiple users, we have introduced a Login system.

This system Allows-

- Creation of multiple Users
- Altering of login credentials
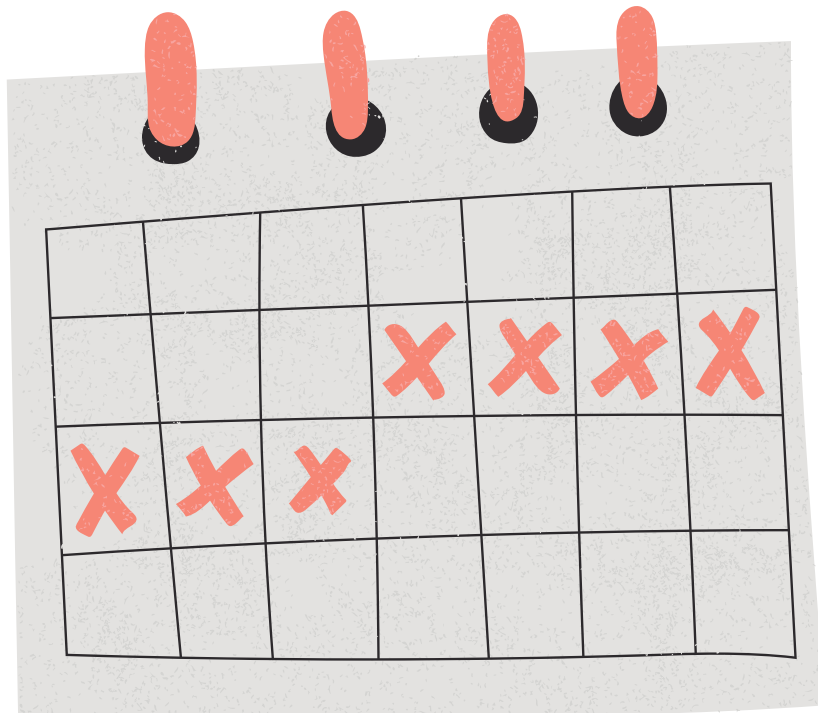- Removing of a User

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# Diary

It has all promised basic features such as adding / removing / finding entries. Apart from these we have also implemented:

- Searching based on - 1. Range of Time
  - 2. Subject
  - 3. Substring in the Body

- Both Paragraphs and Lists in one Entry

- Editing Lists in a specific Entry
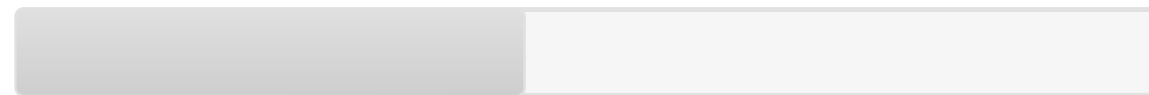
- Highlight mode for important Texts

# To-Do List

Alongside basic To-Do list features, Libello features:

1. A calendar view which shows remaining tasks.

2. A progress Bar.

# Password Manager

Along with storing credentials according to specific sites,
There are added functions as:

- Generate a random password (with complete freedom)
- Password Strength Checker
- Copy to clipboard while searching/generating a password

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# Features promised which
# Couldn't be implemented?

## None

Instead we were able to add a lot more features than promised as shown in the previous slides with suggestions from others as well as our own.

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# Problems & Solutions

## 01 Password Security

Solved using buffer-less inputs using _getch() and printing asterisks for every input recieved.

## 02 Backspace Issues

Taking bufferless inputs meant instantly printing it on the screen. To use backspace properly we had to utilize '/b' multiple times.

## 03 Paragraph & Lists

To seamlessly transition between paragraphs and lists we came up with a tag system similar to html tags.

# Problems & Solutions(Cont.)

## 04 Highlight Mode

The Issue of Highlight mode having a separate tag meant there were difficulties when it came to searching substrings and removing text. We had to come up with a whole different function to remove tags and search substrings

## 05 Deserialization

Since users were given the freedom of picking username sometimes names would overlap with files related to the program, We had to come up with a different naming format (UserXX),

## 06 Working with Dates

Since there are many calculations using dates in the to do list and diary it would be a big hassle to use a 3d ragged array for dd/mm/yyyy, We instead used a daysGone function in order to combine the day and month and make the code simpler
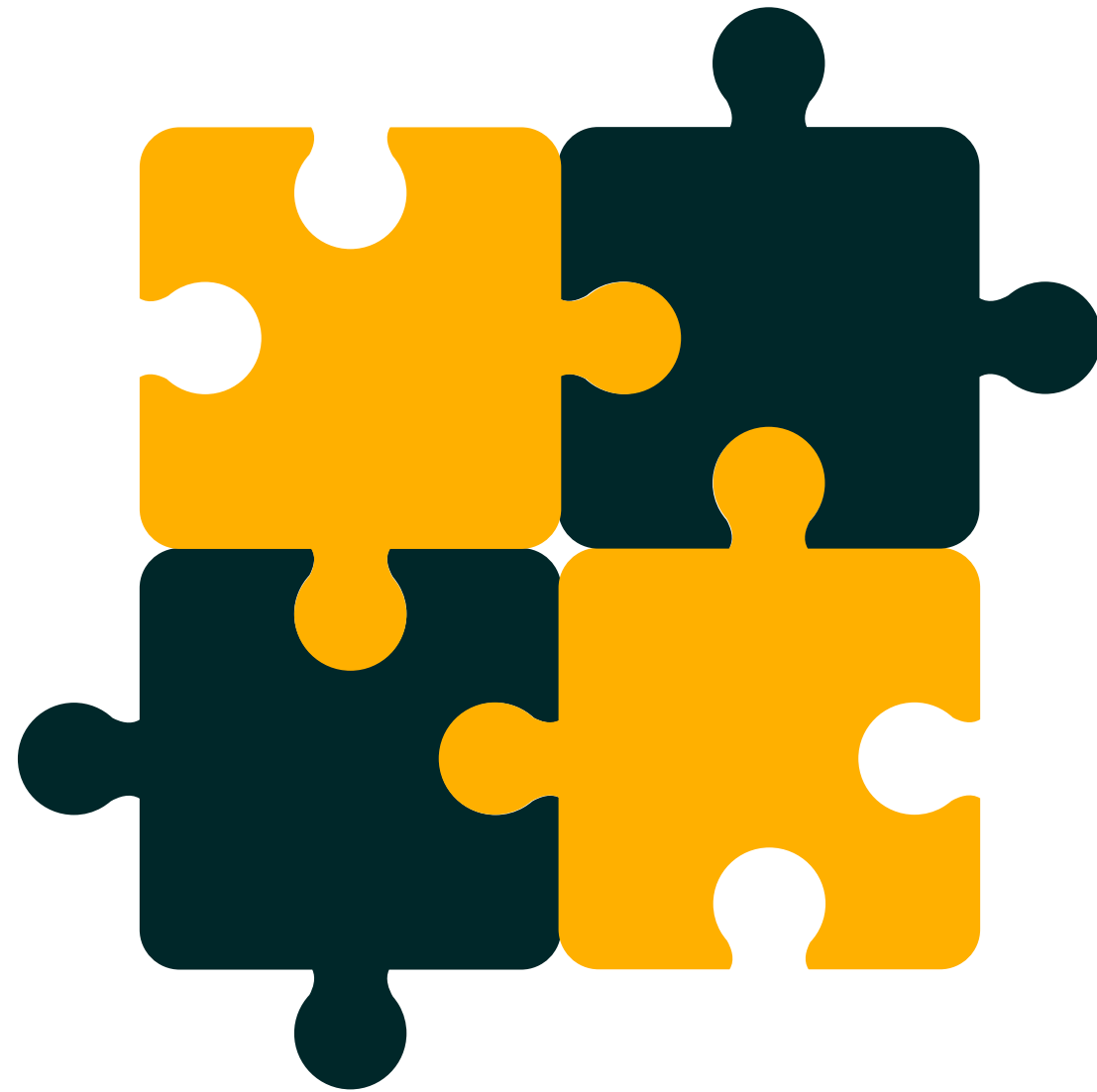
# Problems & Solutions(Cont.)

## 07 Strcmp not working?

The issue was since we used fgets() as well as while loops to take input the extra new-line from the fgets caused strcmp to not return 0. so we had to manually remove the '\n'

## 08 Way too many Files

With each user having access to 3 different applications and each having many entries we had a lot of files which cluttered the root folder. We had to use various types of directory manipulation techniques.

# Work Division

## Md. Zunaid-Ul-Alam

- Log in System
- Part of Diary ( List Editting/ De/Serealizing )
- Password Manager
- Adding Dates/Eventlist on Menu
- Merging of Codes

## Shams Farhan Ivan

- Implementation of Menu System
- Majority of Diary
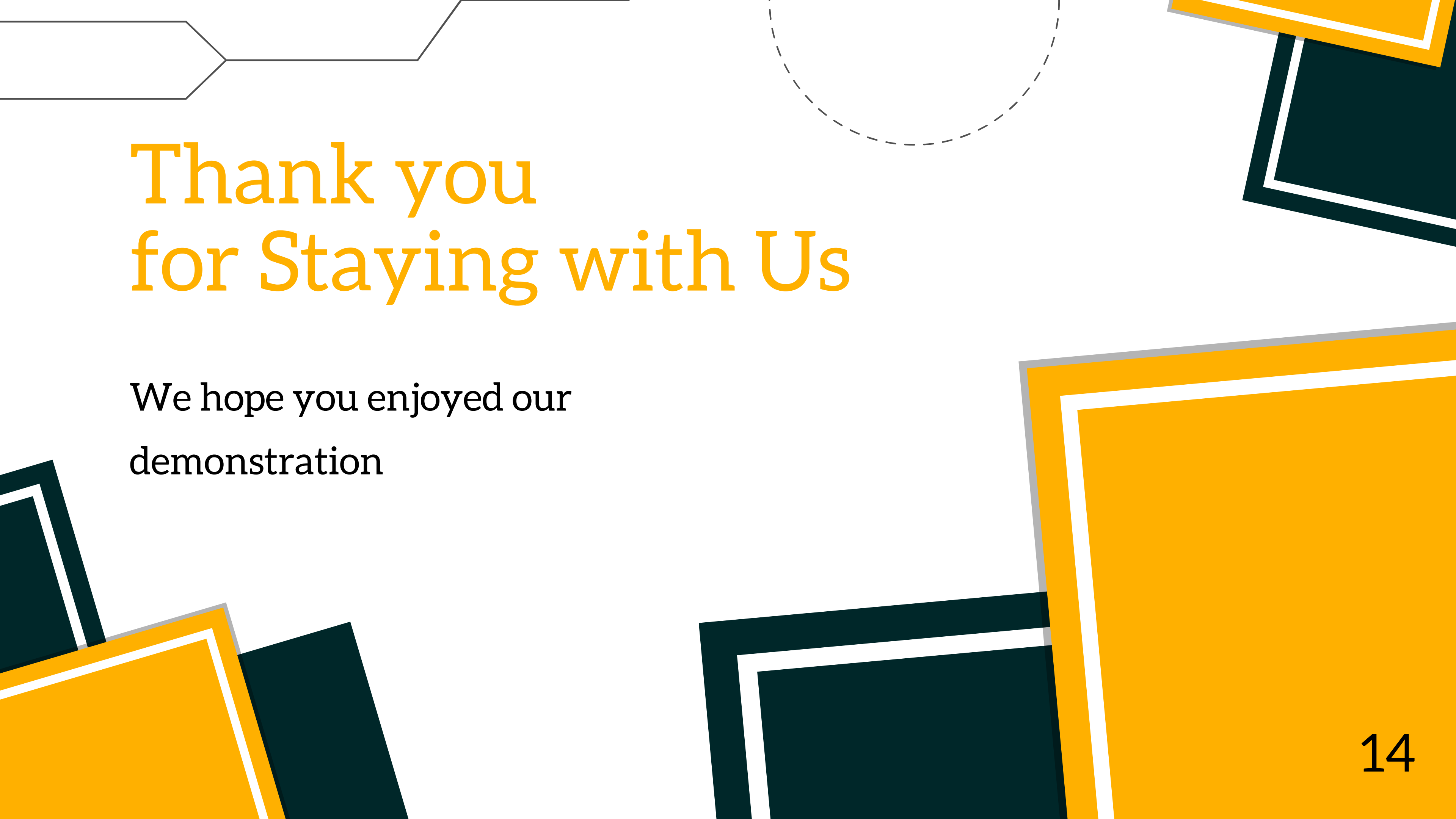- Calendar view in To-Do List
- Testing

## Mir Md Inzamam

- To-Do List
- Progress Bar
- Idea of Menu and Designing

**Everyone helped in terms of Debugging**

# Let's move into the Demonstration

# Thank you
# for Staying with Us

We hope you enjoyed our

demonstration

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