

CASE STUDY & GROUP PROJECT ON

# LIBRARY MANAGEMENT SYSTEM



University of Kelaniya



Software Engineering Teaching Unit

Faculty of Science, University of Kelaniya

Presented by Group No 4





# Problem

## Step 1 - Identify

Target Audience

Requirements

Getting into UI design

## Step 2 - Design Process

UI components

Flowcharts

Alternative UIs

## Step 3

Increase design process with Agile approach and  
Evaluating our design



# Target Audience

System is

**FREE**

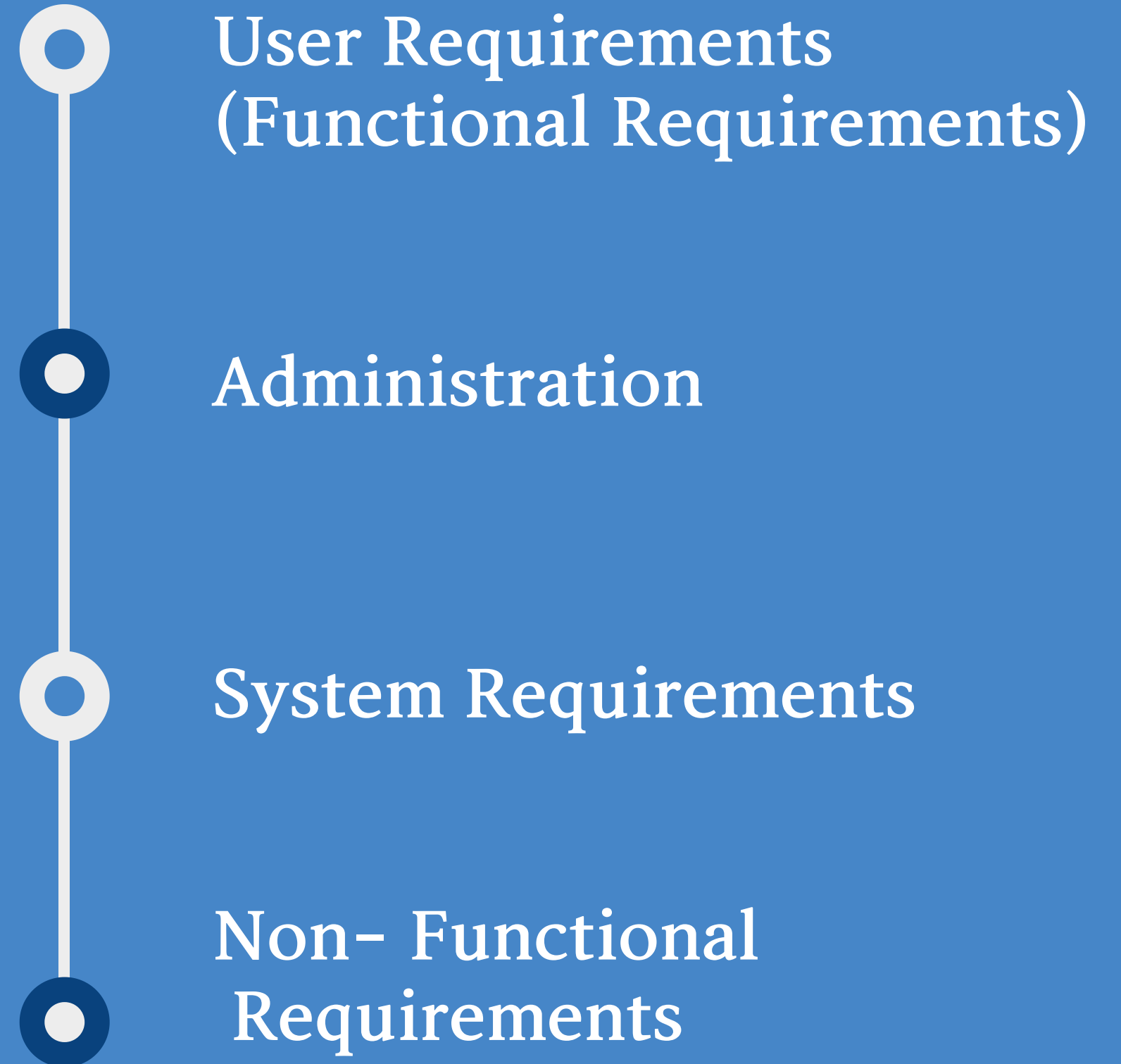
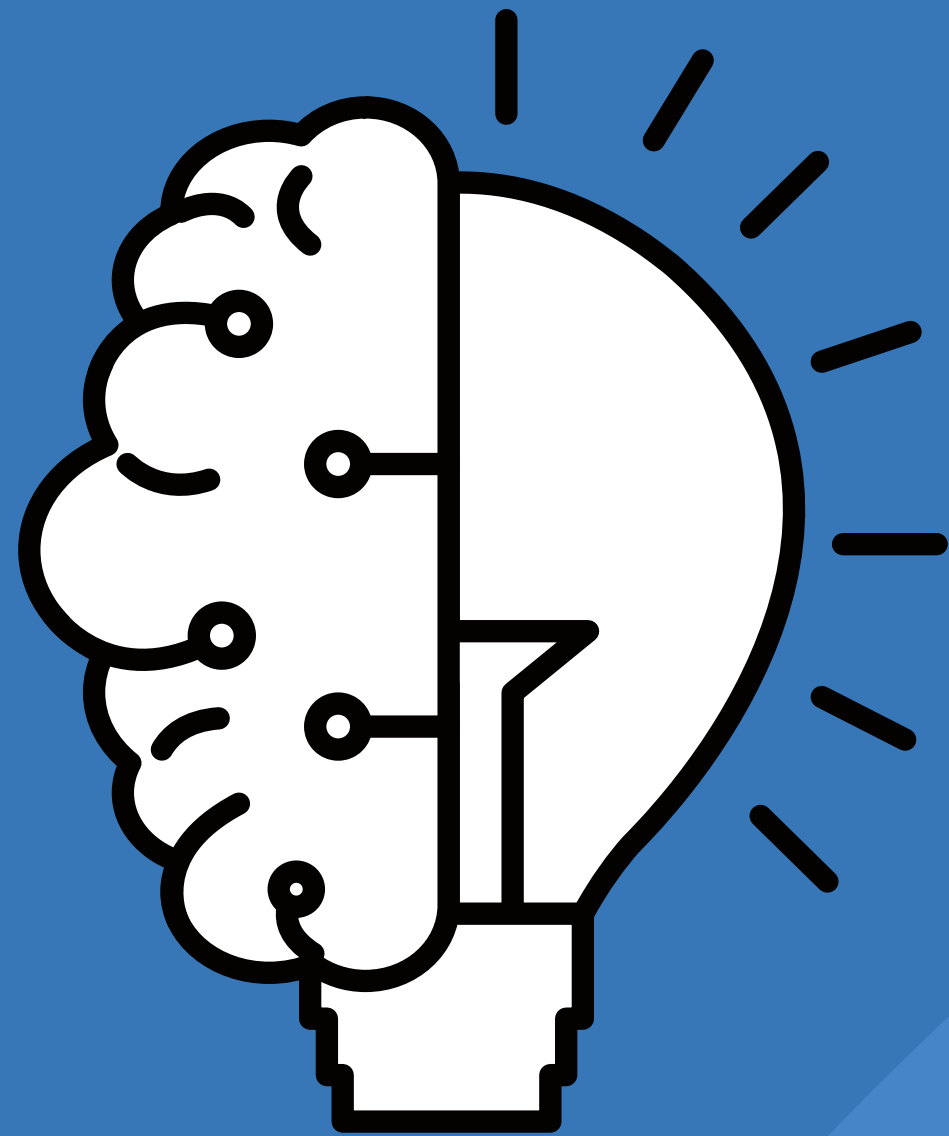
to use.

Who are the benefit holders?

- Students
- Staff



# Requirements



# System features

- ▶ Issue a book
- ▶ Return a Book
- ▶ Add new category



# What they want?

## Requerements gathering method

- Surveys
- Document Analysis
- Interface Analysis



# UI Design Principles

- Consistency
- Minimal Surprise
- User Guidance
- Recoverability
- Strong visual hierarchy





# UI Design Values



Ethical



Purposeful



Pragmatic



Elegant

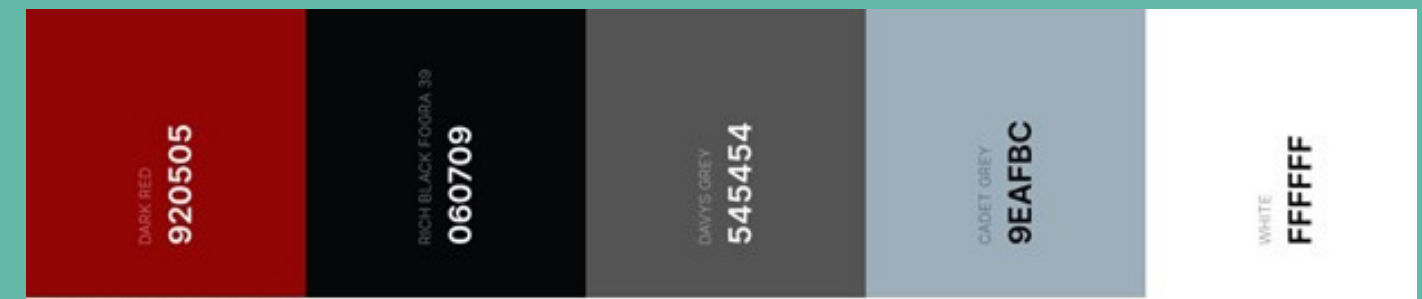
How we used Design  
values for improving  
our system?

# UI Components

They increase the usability of our system....



## Color palettes



## Icons and logos



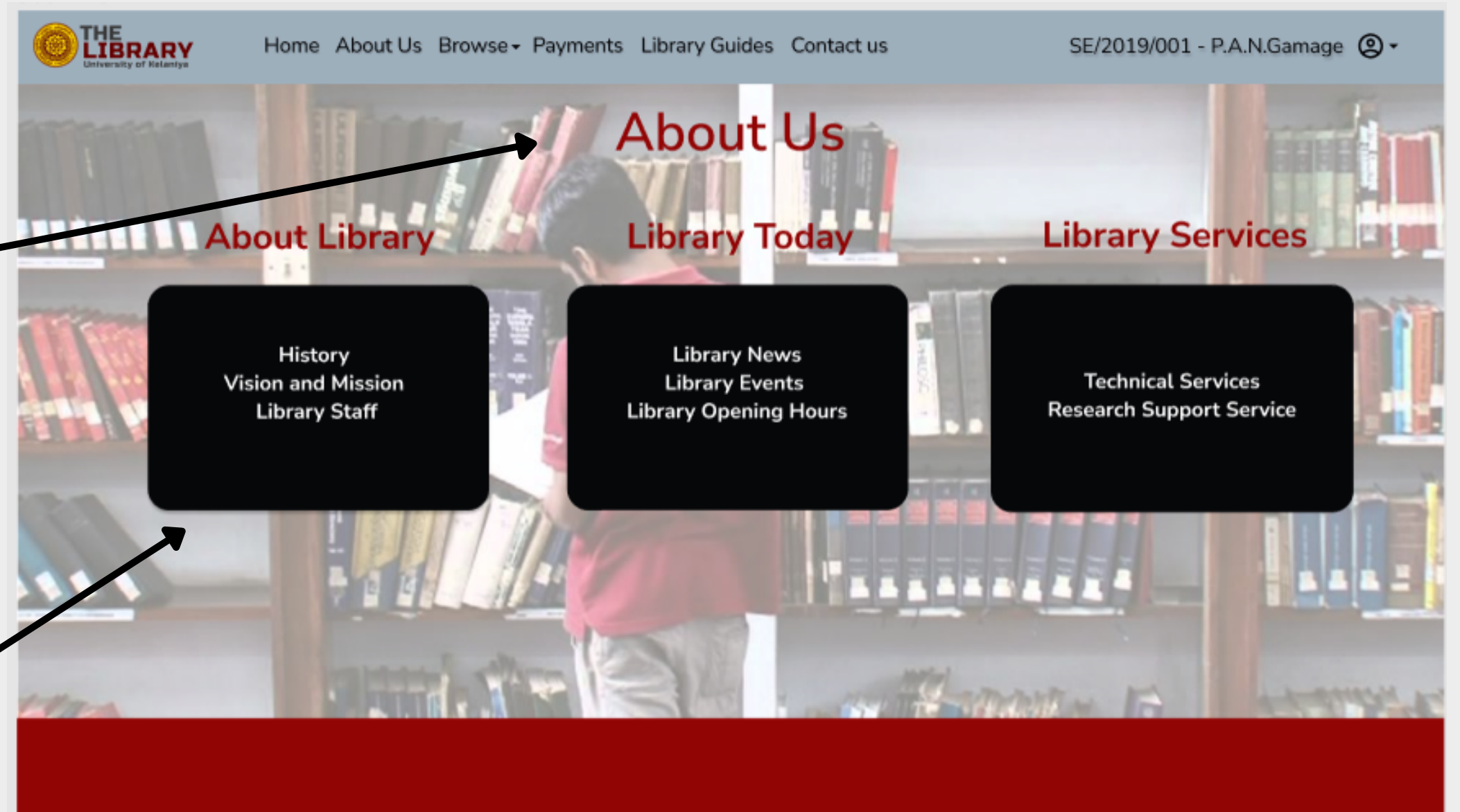
# Fonts

For Headings

"Roboto Condensed", Open-sans

For Contents

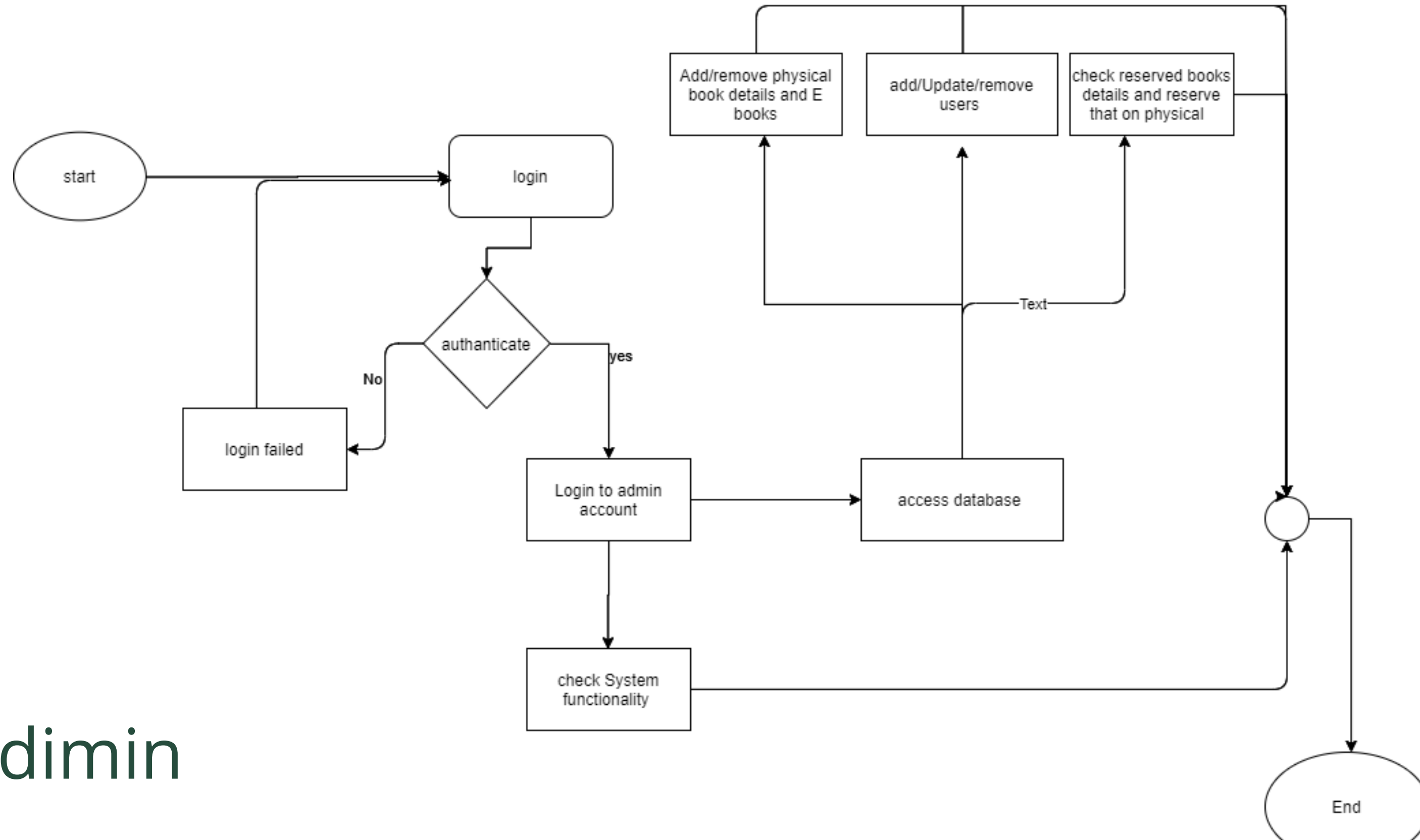
"Open sans", sans-serif



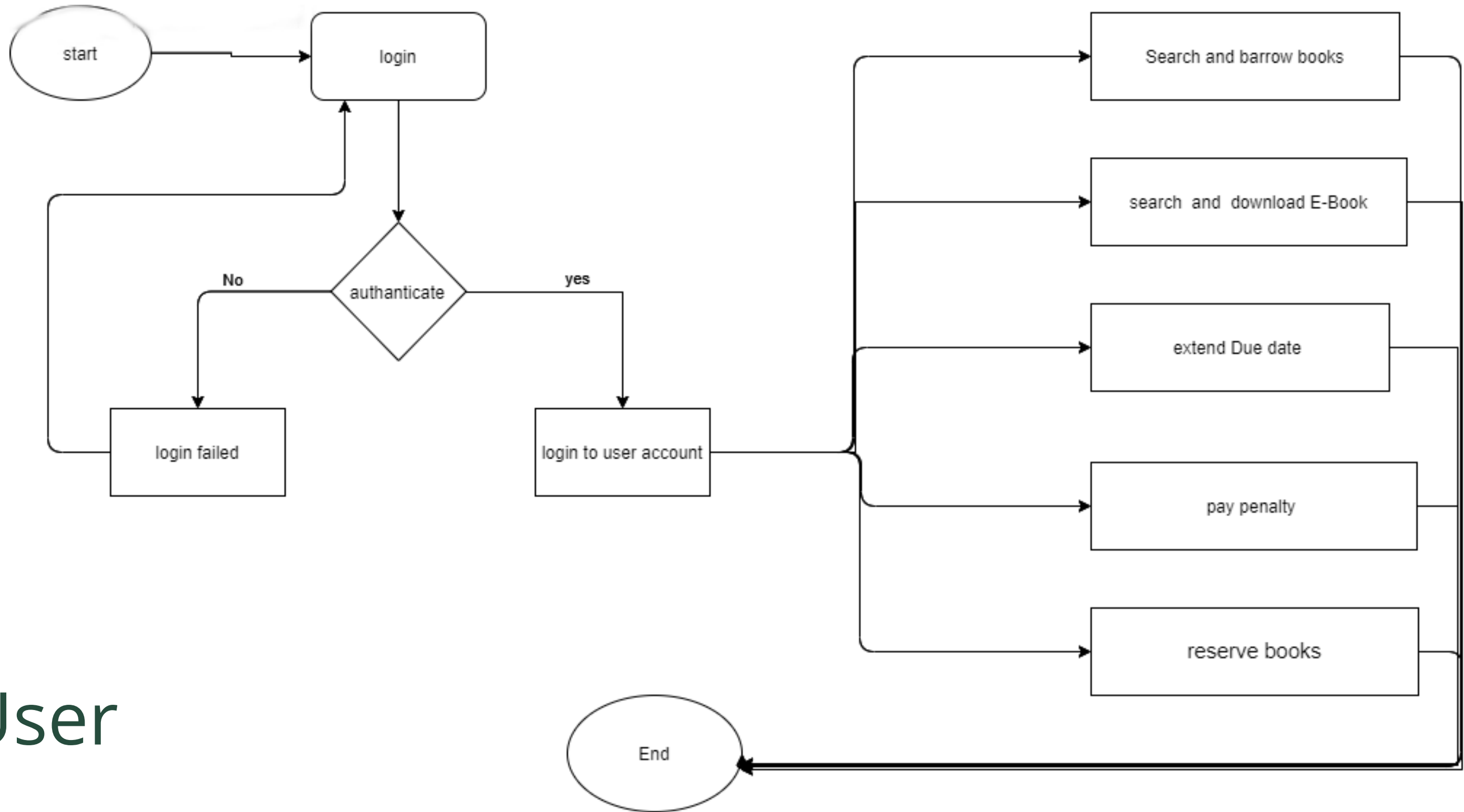
# UI design patterns

- Primary Actions
- Hover Controls

# User-Flows



Admin



User

# Human cognition

Multilingual and  
multi-user  
support

It is user-  
friendly

Easy to  
maintain the  
database

Web based OPAC  
(Online Public  
Access Catalog)  
system

Simple, clear  
search  
interface for  
all users



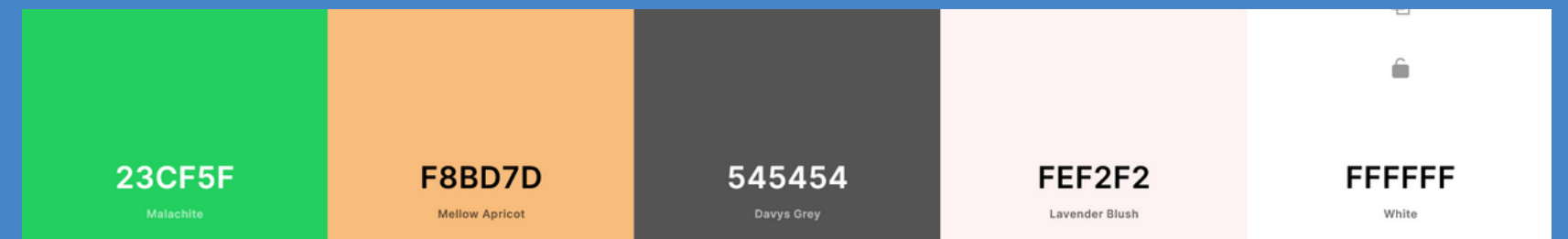
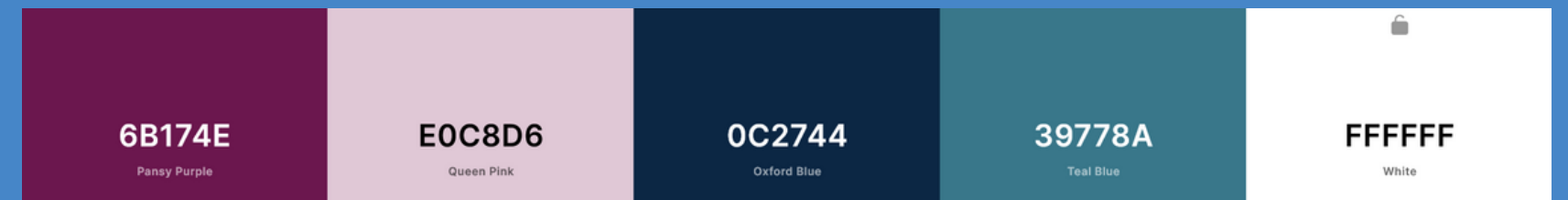
# Jumping into real solution



"Welcome to E -Library"



# Alternate UIs



Button

Button

# Our Agile Approach

- Team-member interactions
- Customer feedbacks
- deep analysis of every part
- The project was completed in increments, allowing our team members to respond to changes as part of the process.



## ENSURING VALIDITY

- appropriate methods of measurement and sampling

## ENSURING RELIABILITY

- Applying our methods consistently
- Standardizing the conditions

Our  
evaluation  
criteria

# Thank You!

## Our Team



Software Engineering Teaching Unit  
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Abdullah Ramees

SE/2018/001



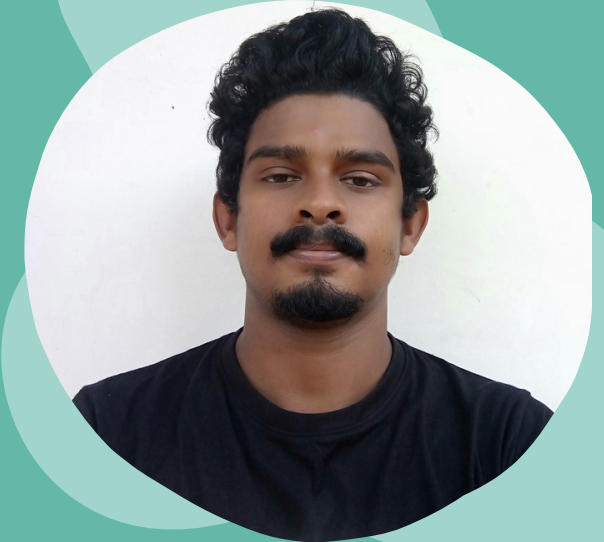
Nipuni Perera

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Mahela Dissanayake

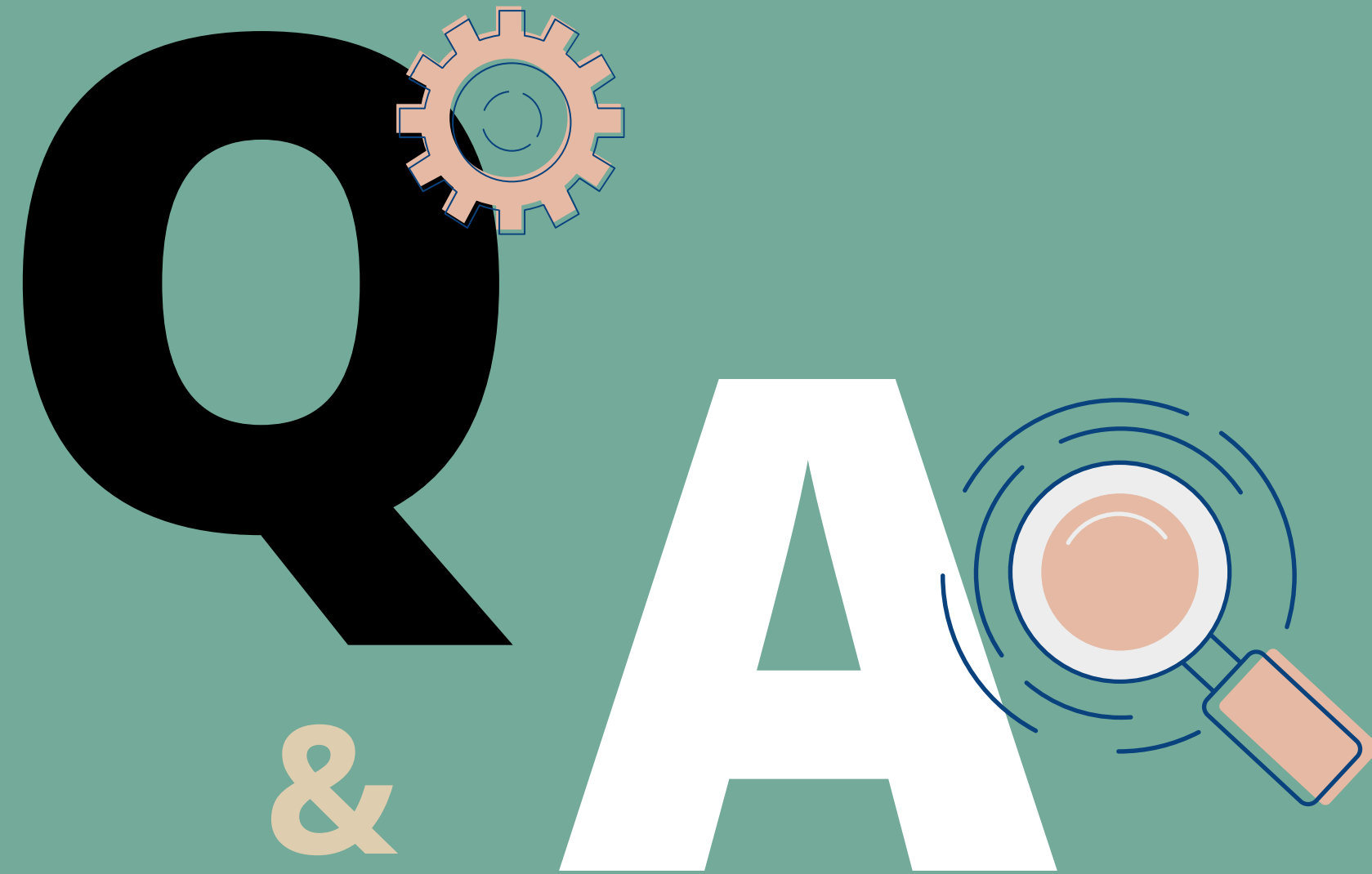
SE/2018/013



Sachin Tharaka

SE/2018/042

# Discussion



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