



TPS Training Presentation

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Outline

- Introduction
- Training phases
- Real Application “Online Library System”
- Demo

Introduction

- About me
 - Computer Engineering Student at JUST
 - Will Graduated at the end of this month
- About Training
 - I have started my training in TPS on 3/3/2024
 - My training focused on developing web applications using .NET Core with MVC and Entity Framework

Training phases

- **Phase 1:**
 - Learning SQL by a given tutorial
 - Learning what is ASP.NET core and how to start build application using it which was explained in “Pro ASP.NET Core 7.0, Adam Freeman ” book
 - Learning EF core with MVC by a given tutorial
 - Build my first ASP.Net application step by step using the book
 - Learning CSS and Bootstrap by a given tutorials

Training phases

- **Phase 2:**
 - Build my first task which is a .Net project called "Library" consists of two pages:
 1. Shelves management by performing CRUD operations, and each shelf has multiple books.
 2. Books in each shelf also are managed using CRUD operations, this page should be displayed after click on the shelf name

Training phases

- **Phase 3:**
 - Learning about additional component in .Net by a given tutorials.
 1. Web API using ASP.NET Core
 2. SignalR
 3. Authentication “Microsoft Identity”
 4. JQuery data tables
 5. Scheduler “hang fire”
 6. Chart JS

Training phases

- **Phase 4:**
 - Build the project “online library system” using three-tiers architecture and repository pattern.
 - Improve the Library System by adding a new features, and design enhancements to make the final version of the project. As we will see in the next slides.

Real Application

“Online Library System”

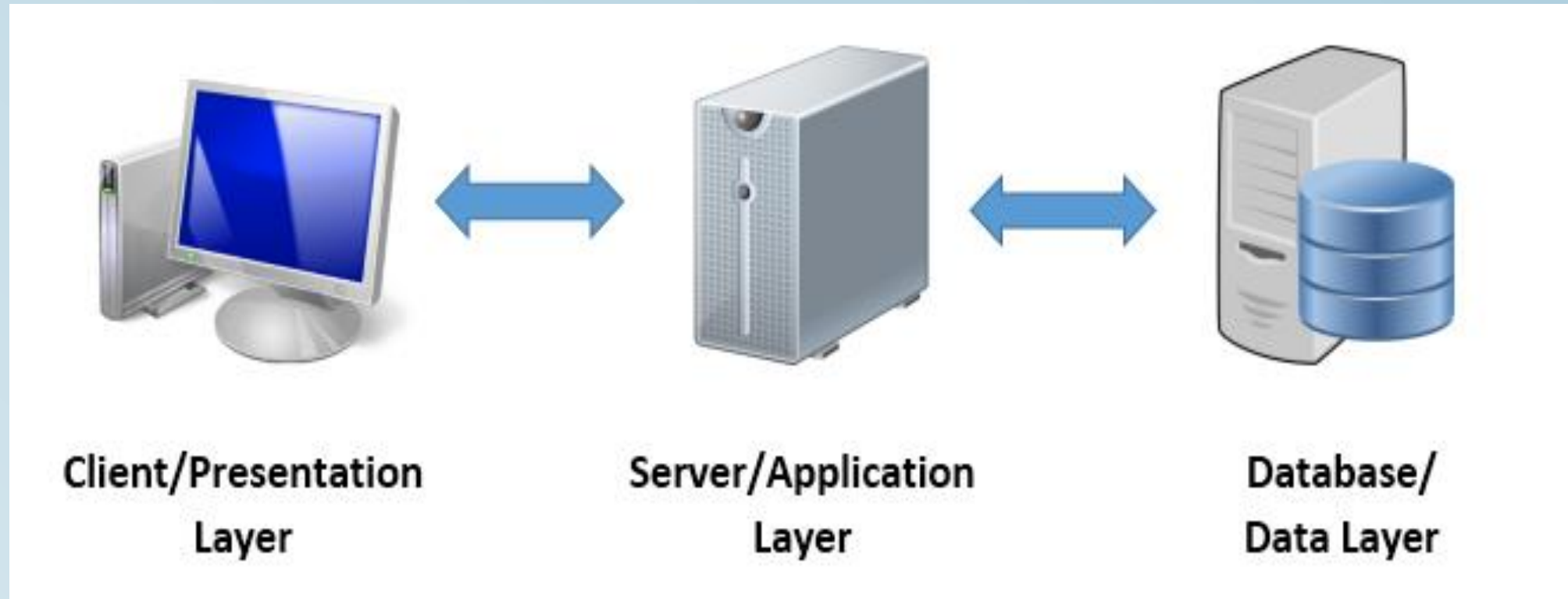


1-About the Application

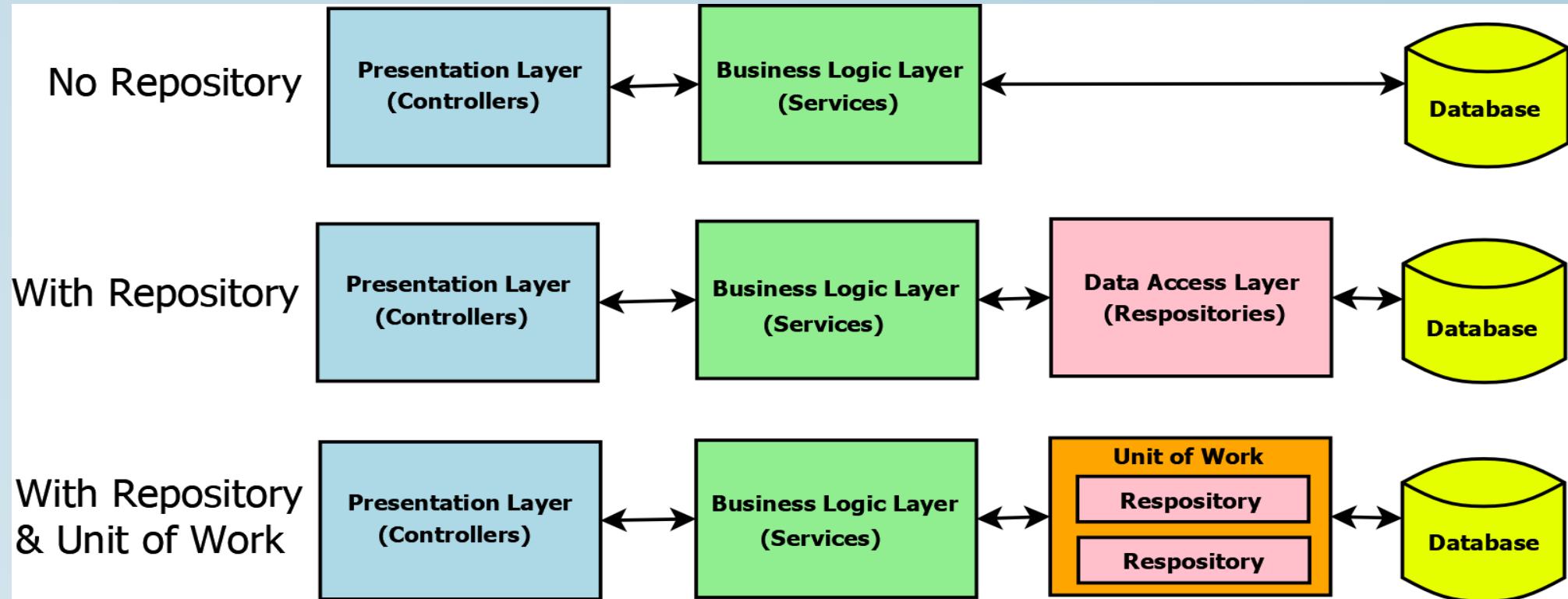
The Online Library System is a comprehensive digital platform designed to provide an efficient experience for both users and administrators in managing and accessing a wide range of books that are arranged in shelves and classified by categories.

The application is built using three-tiers architecture and repository pattern, ensuring scalability, maintainability, and efficient data management.

Three Tier Architecture



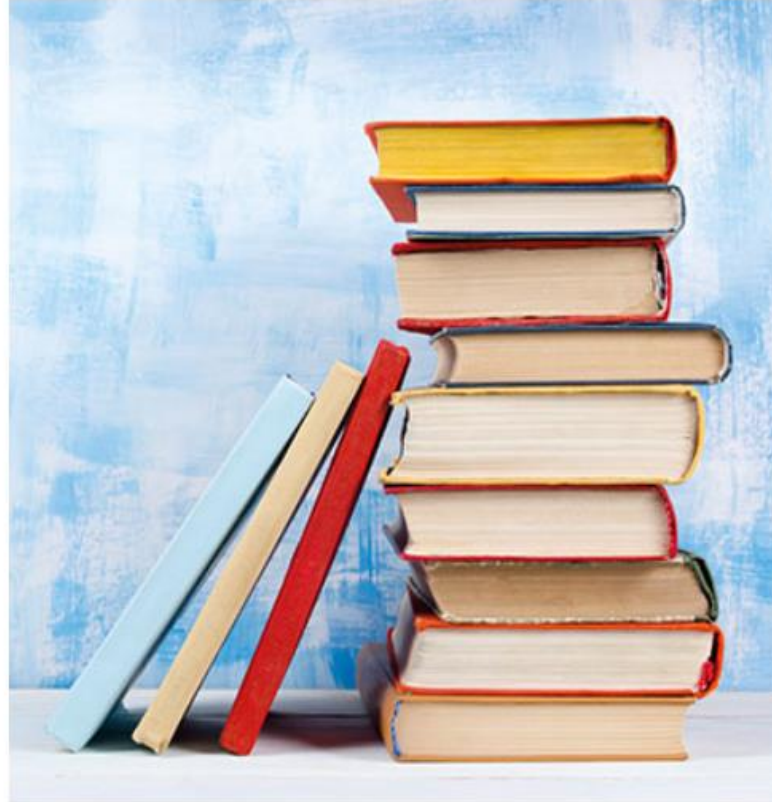
Repository Pattern



Login Page

Library System

[Log in](#) [Register](#)



LOGIN

Please enter your Email and password!

Email Address

admin@gmail.com

Password

.....

[Log in](#)

Don't have an account? [Register](#)

Home Page

Library System

[Home](#) [Dashboard](#) [Shelfs](#) [Categories](#) [Log out](#)



Discover Shelves

Check out our books organized by shelves

[View Shelves »](#)

Show Categories

Explore books by your favorite category

[View Categories »](#)

2- Admin Features

- Dashboard Overview:
 - The admin dashboard provides a comprehensive view of the system statistics.
 - Key metrics include the number of shelves, books, categories, and registered users.
 - Interactive charts display the distribution of books across different shelves and categories.

Dashboard Page

Library System

[Home](#) [Dashboard](#) [Shelves](#) [Categories](#) [Log out](#)

Number of Shelves

9

Number of Books

16

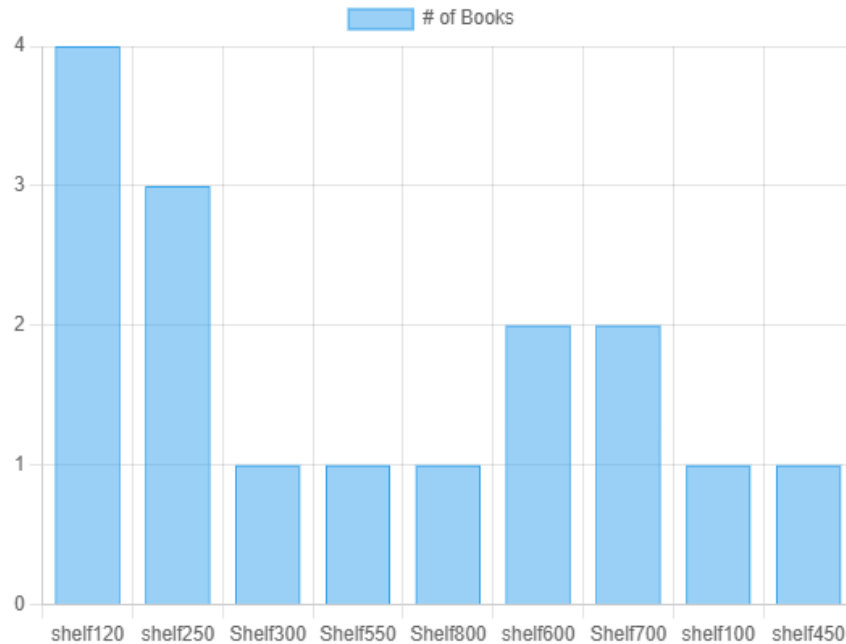
Number of Categories

5

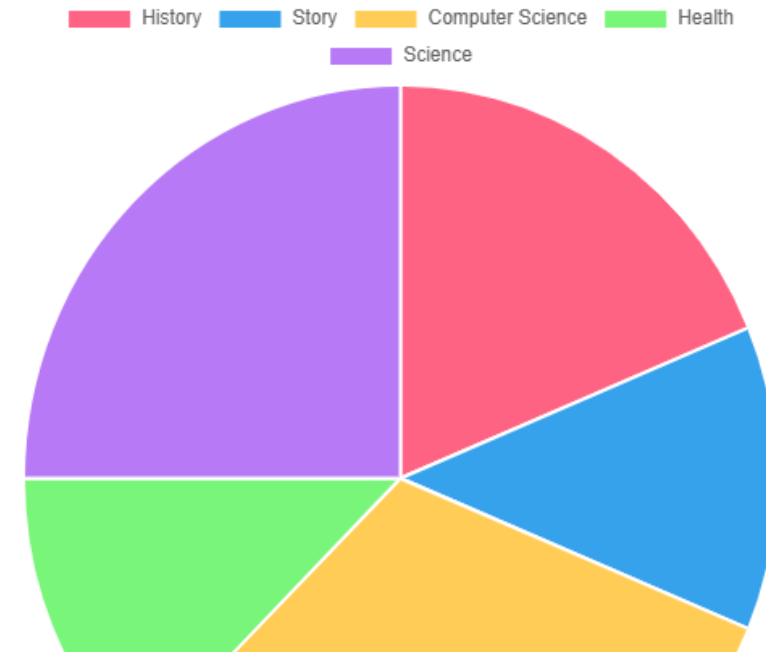
Number of Users

9

Books per Shelf



Books by Category



2- Admin Features

- Shelf and Categories Managements:
 - The admin can perform CRUD (Create, Read, Update, Delete) operations on shelves and categories.
 - Shelves and categories are displayed using Data Tables, which offer benefits such as enhanced data handling, sorting, searching, and pagination for efficient management.

Shelves Management Page

Library System

Search:

Show

5

 entries

Shelf Name	Actions
shelf100	<div>EditDelete</div>
shelf120	<div>EditDelete</div>
shelf250	<div>EditDelete</div>
Shelf300	<div>EditDelete</div>
shelf450	<div>EditDelete</div>

Showing 1 to 5 of 9 entries

[Previous](#) [Next](#)

Categories Management Page

Library System

Search:

Show

5

 entries

Category Name	Actions
Computer Science	<div>EditDelete</div>
Health	<div>EditDelete</div>
History	<div>EditDelete</div>
Science	<div>EditDelete</div>
Story	<div>EditDelete</div>

Showing 1 to 5 of 5 entries


[Previous](#) [Next](#)

2- Admin Features

- Books Managements:
 - The admin can perform CRUD (Create, Read, Update, Delete) operations on Books, and upload an image represents each book and a PDF file has the content of the book.
 - Books are displayed as a card, and each card has an image and the buttons to let the admin manage the books.
 - The admin can view the books by the shelves or by categories.

Display books in the shelf

Library System


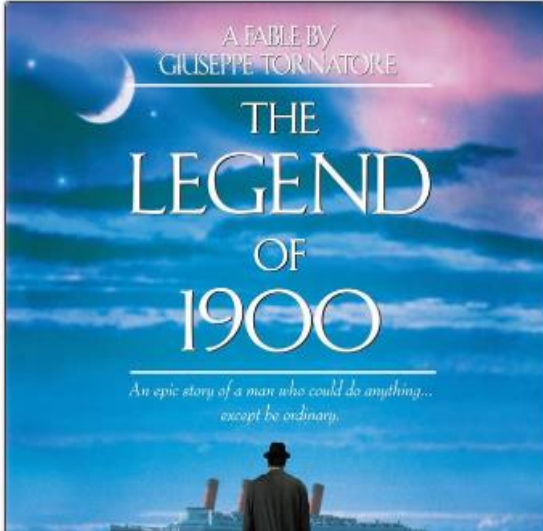
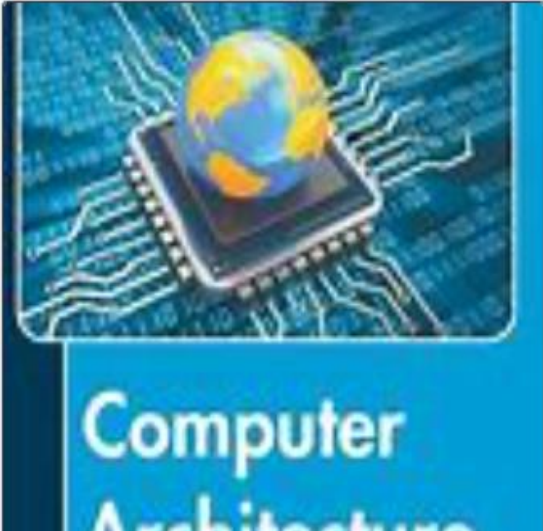


Home Dashboard Shelves Categories Log out

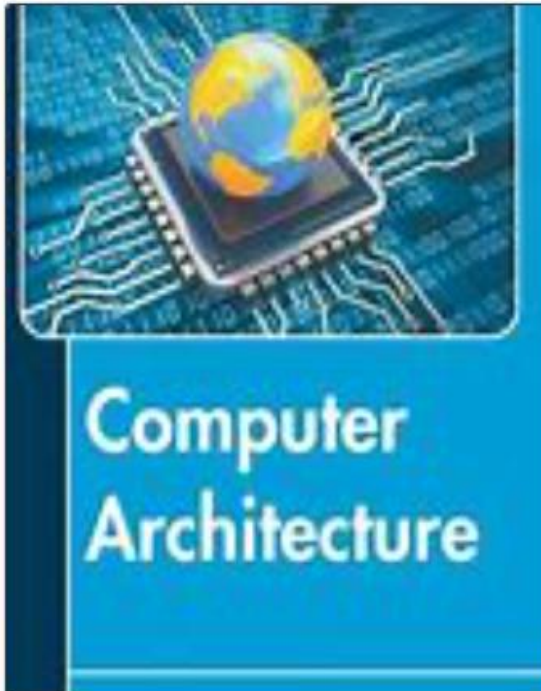
shelf120

Add a new book

Add



Books Management Page



Upload Image

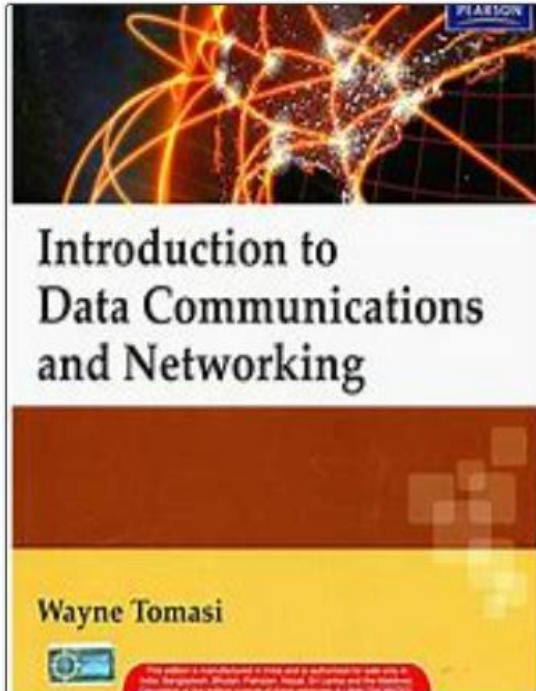
Computer Architecture

Computer Science

Delete

Edit

Upload book



Upload Image

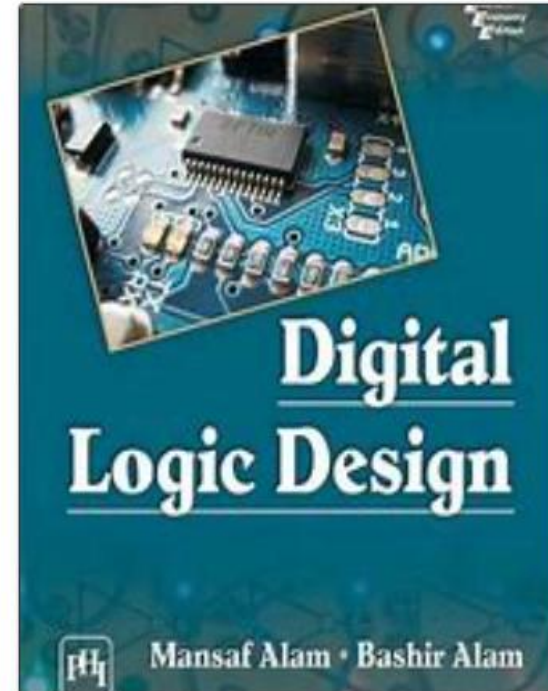
Data Communication

Computer Science

Delete

Edit

Upload book



Upload Image

Digital Logic Design

Computer Science

Delete

Edit

Upload book


3- User Features

- Login and Registration:
 - Users can easily register for an account or log in to access the library.
 - Secure authentication ensures that user data is protected.
- Browse and View Books:
 - Users can explore books organized by shelves or categories for easy navigation.
 - Each book can be viewed in PDF format or downloaded for offline reading.
- Book Rating:
 - Users can rate books they have read, helping others in the community find quality reads.
- Search Functionality:
 - A search bar allows users to find specific books by name or category quickly.

Register Page

Library System

[Log in](#) [Register](#)



Sign up for a new account

Email address

Password

Confirm password

Display books in the Category

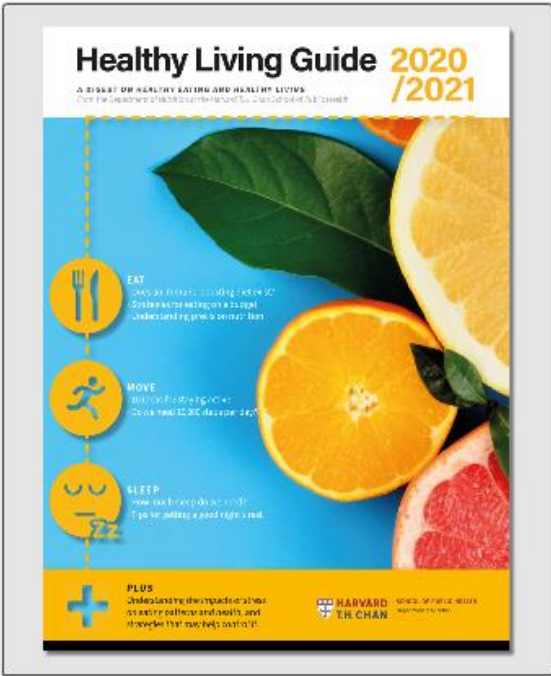
Library System

Search for a book or category

Home Shelves Categories Log out

Health

- History
- Story
- Computer Science
- Health
- Science



Healthy Living Guide 2020/2021
A GUIDE TO HEALTHY EATING AND HEALTHY LIVING
Over 100 Recipes and 100 Tips to Help You Live Healthier

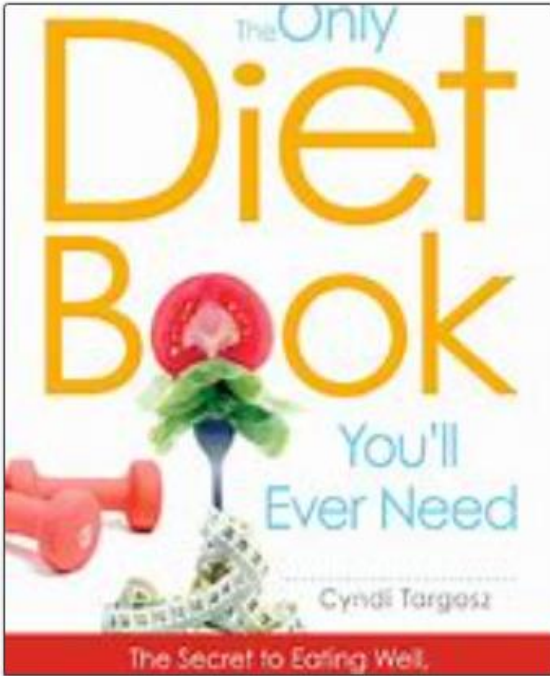
EAT
Discover the secrets to eating healthy
Discover the secrets to eating healthy
Discover the secrets to eating healthy

MOVE
Discover the secrets to staying active
Discover the secrets to staying active
Discover the secrets to staying active

SLEEP
Discover the secrets to getting a good night's sleep
Discover the secrets to getting a good night's sleep
Discover the secrets to getting a good night's sleep

PLUS
Discover the secrets to staying healthy
Discover the secrets to staying healthy
Discover the secrets to staying healthy

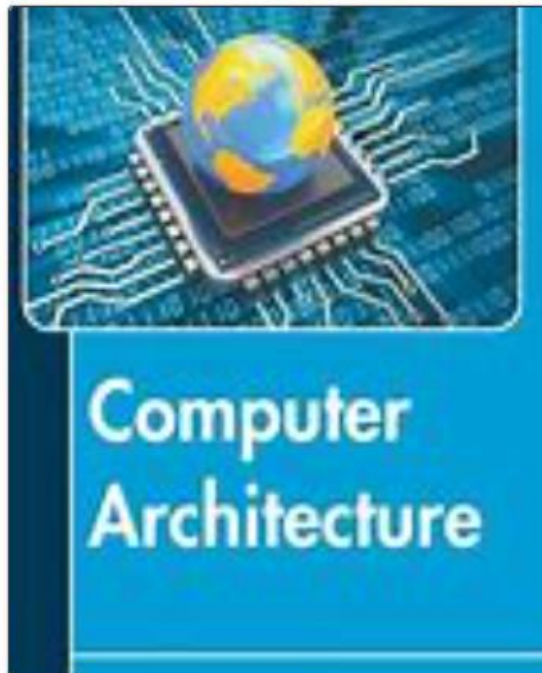
HARVARD T.H. CHAN



The Only Diet Book You'll Ever Need
The Secret to Eating Well

Cyndi Targosz

Books View Page



Computer Architecture

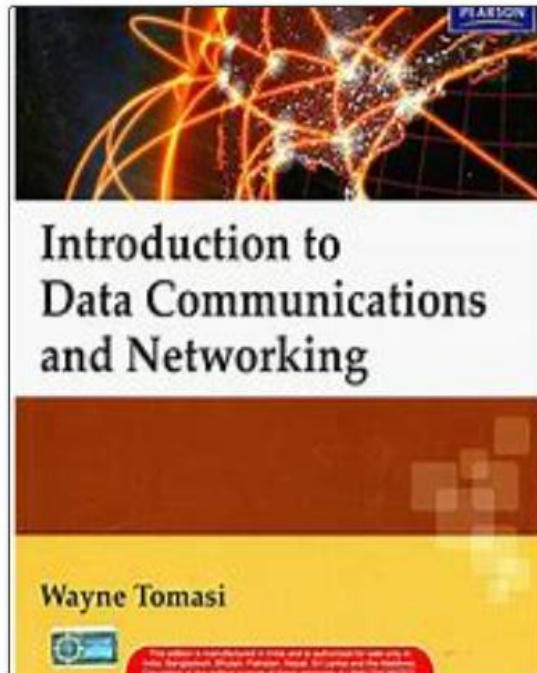
Computer Science

2 stars

[View](#)

[Download](#)

Rate



Data Communication

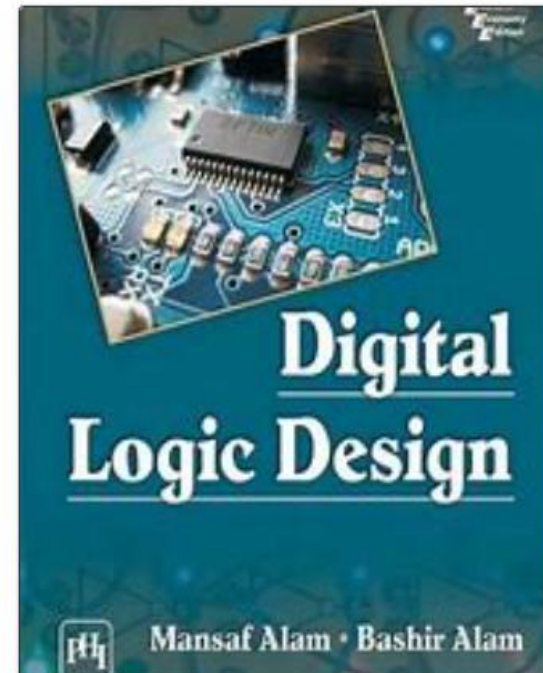
Computer Science

4 stars

[View](#)

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Rate



Digital Logic Design

Computer Science

0 stars

[View](#)

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Rate





Demo

Online Library



Thank you!
Any Questions?