



UGANDA CHRISTIAN
UNIVERSITY

A Centre of Excellence in the Heart of Africa

FACULTY OF ENGINEERING, DESIGN AND TECHNOLOGY
DEPARTMENT OF COMPUTING AND TECHNOLOGY
EASTER 2024 SEMESTER EXAMINATION

PROGRAMS: *BACHELOR OF SCIENCE IN DATA SCIENCE, BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY*

YEAR: 1 SEMESTER: 2

COURSE CODES: *CSC2210, CSC1202*

COURSE NAME: *WEB AND MOBILE APPLICATION DEVELOPMENT*

EXAMINATION TYPE: *PROJECT-BASED*

PROJECT DURATION: *MARCH - APRIL*

TIME ALLOWED: *2 WEEKS*

Examination Instructions

1. The general Uganda Christian University examination guidelines and academic & financial policies apply to this examination. Violating any of the policies by the student automatically makes this examination attempt void, even if you have completed and submitted the answer project deliverables.
 2. This exam consists of a project to be executed within *two* weeks.
 3. Every student has a responsibility to prove their contribution towards every milestone, and marks may be awarded to every student individually.
-

PROJECT DESCRIPTION

Background: Promoting Local Languages and Literature in the East African Community

The East African Community (EAC), consisting of Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda, boasts a rich cultural heritage with diverse linguistic traditions and literary expressions. However, despite the abundance of local languages and literature within the region, there has been a noticeable lack of promotion and accessibility of indigenous content, particularly in the digital sphere.

The advent of the internet and digital technologies has transformed the way information is accessed, consumed, and shared worldwide. While this digital revolution has facilitated the dissemination of knowledge and cultural exchange on a global scale, it has also posed challenges for the preservation and promotion of local languages and literature, particularly in regions with linguistic diversity like the EAC.

One of the primary reasons for the poor promotion of local languages and literature in the EAC is the limited availability of digital content in indigenous languages. Unlike major languages such as English and Swahili, many local languages within the EAC lack adequate representation online and in digital platforms. This scarcity of digital content hampers efforts to preserve and promote indigenous languages and literature, undermining cultural identity and linguistic diversity within the region.

Additionally, the lack of infrastructure and resources for digitizing and archiving local literary works further exacerbates the problem. Many local authors and publishers face significant challenges in digitizing their content and making it accessible online, resulting in a digital divide that marginalizes local languages and literature in the digital age.

Problem Statement:

Despite the linguistic and cultural richness of the East African Community, there is a glaring lack of promotion and accessibility of local languages and literature, particularly in the digital sphere. The scarcity of digital content in indigenous languages hinders efforts to preserve cultural heritage, promote linguistic diversity, and foster a sense of identity among East African communities. Addressing this problem requires innovative solutions to digitize, disseminate, and promote local languages and literature online, thereby bridging the digital divide and empowering East African authors, publishers, and cultural institutions.

Project Overview

The goal of this project is to develop an online bookstore web application where users can browse, search, and purchase books on EAC literature. Additionally, users should be able to create accounts, manage their profiles, and track their order history.

PROJECT REQUIREMENTS: REQUIREMENTS (FUNCTIONAL AND NON-FUNCTIONAL):

1. Book Catalog:

- a) Create a catalog of books with details such as title, author, genre, price, and availability.
- b) Implement search and filter functionalities to allow users to browse books based on various criteria.

2. Shopping Cart:

- a) Enable users to add books to their shopping cart.
- b) Allow users to modify the quantity of items in their cart or remove items altogether.
- c) Calculate the total price of items in the cart.

3. User Profile Management:

- a) Allow users to view and update their profile information, such as name, email address, and shipping address.
- b) Users should be able to view their order history and track the status of their orders.

4. Admin Panel:

- a) Create an admin panel with functionalities for managing books, orders, and user accounts.
- b) Only authorized admins should have access to the admin panel.
- c) Admins should be able to add, edit, or delete books from the catalog, manage orders, and view user details.

5. Responsive Design:

- a) Ensure the web application is responsive and works seamlessly across various devices and screen sizes.

- b) Utilize CSS frameworks like Material UI, Bootstrap to facilitate responsive design implementation.

6. Security:

- a) Implement security measures such as input validation, CSRF protection, and password hashing to protect against common web vulnerabilities.
- b) Ensure sensitive user data, such as passwords and payment information, is securely stored and transmitted.

7. Testing and Deployment:

- a) Test your application to ensure the functionality and integrity of all components.
- b) Deploy the web application to a hosting environment, such as, Netlify, Heroku AWS, etc. ensuring scalability and reliability.

Deliverables:

1. Fully functional web application with all specified features implemented. (30 marks)
2. Documentation including project requirements, design decisions, installation or deployment instructions, and user guide. (5 marks)
3. Presentation/demo showcasing the features and functionality of the web application. (5 marks)

~THE END~