

LEARN2WIN

UMT REPOSITORY

Prepared by:

Ooi Wei Kit, Lee Wei Siang



PROPOSAL

INTRODUCTION



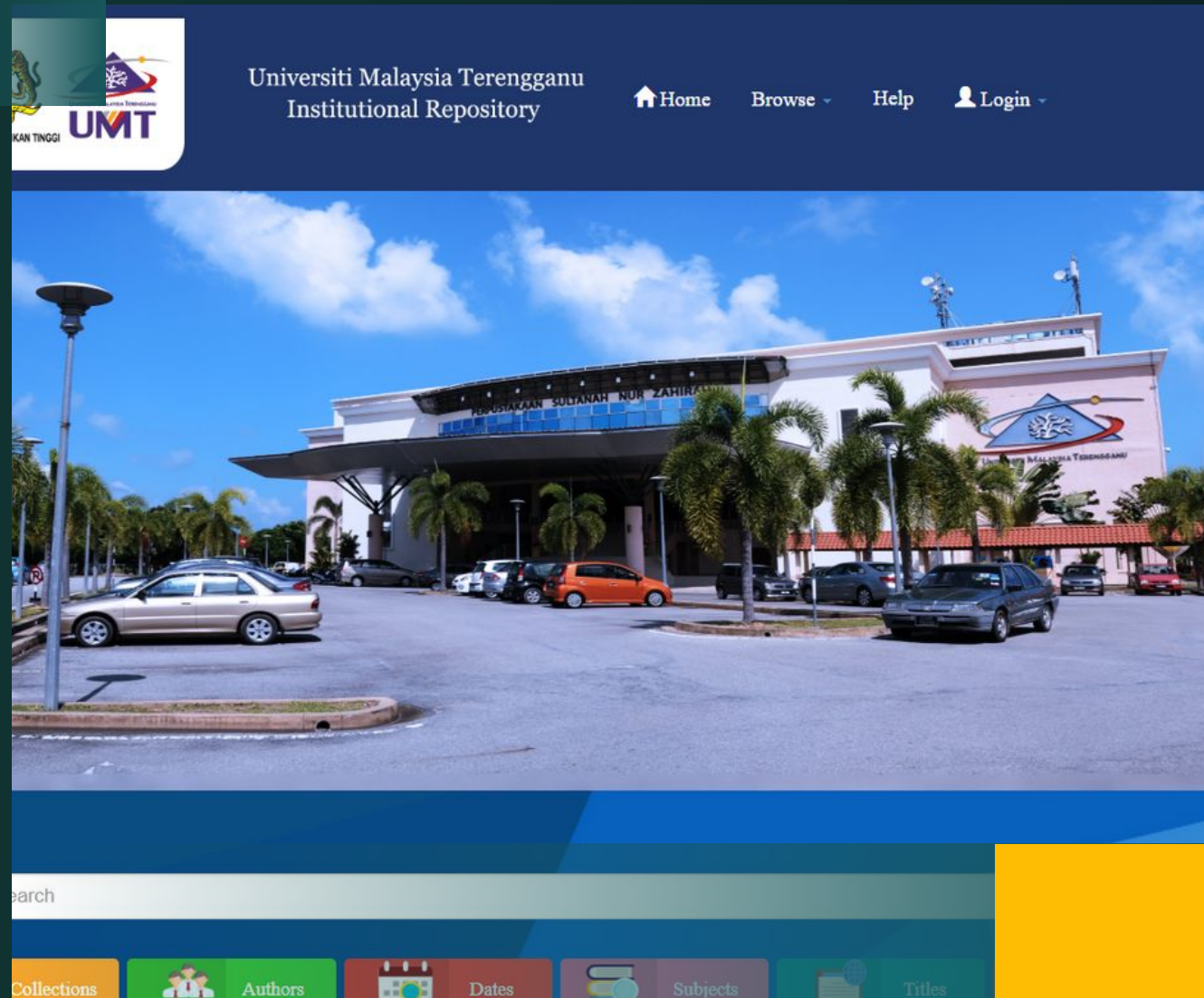
UMT (Universiti Malaysia Terengganu) Institutional Repository was developed to store and preserve a collection of scholarly materials



Exam papers, project reports, media sources and so on will be available to view and download by authorized users

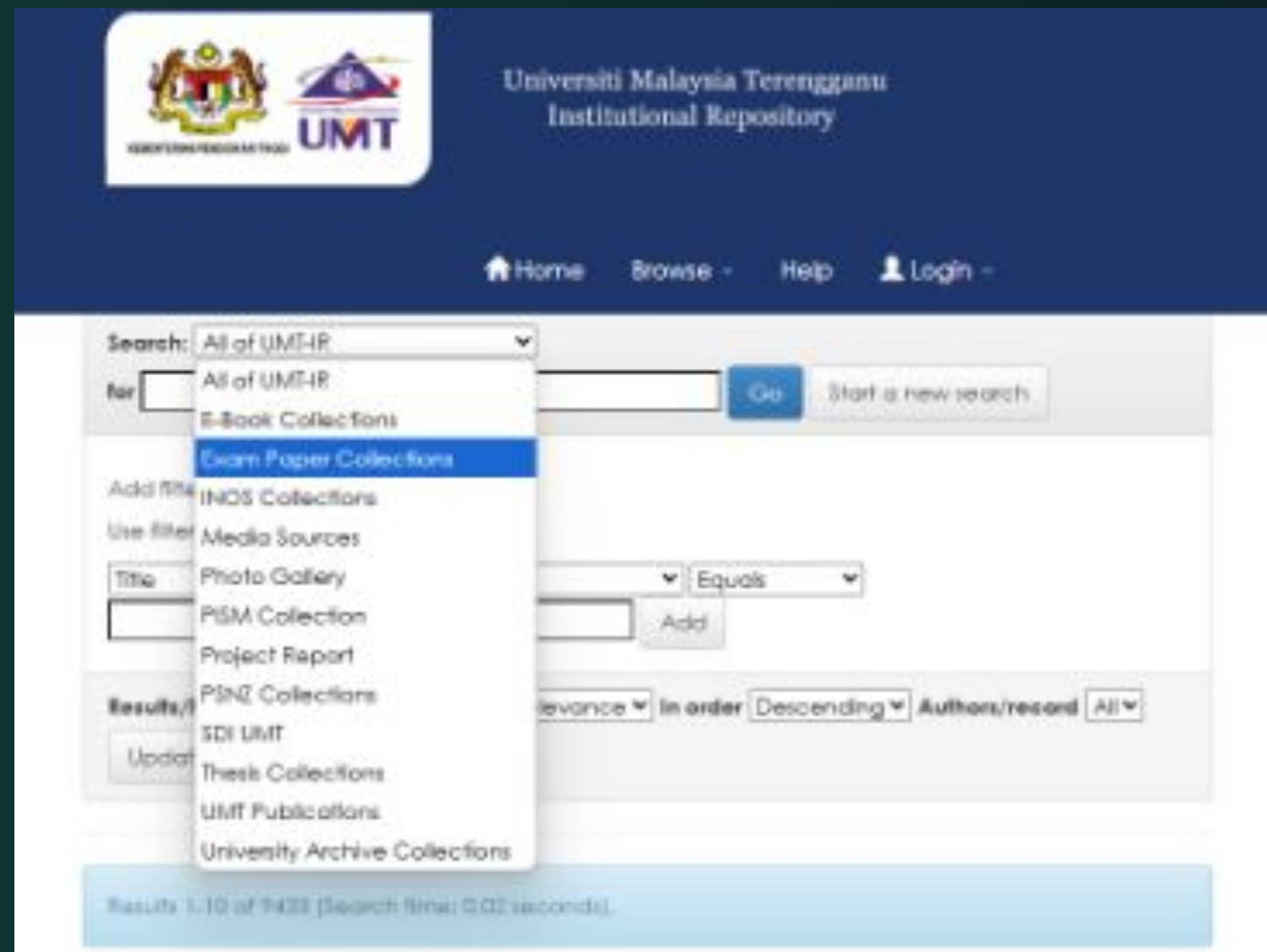


Main objectives is to spread the materials published by this university to the UMT community



PROBLEMS

Complex navigation system



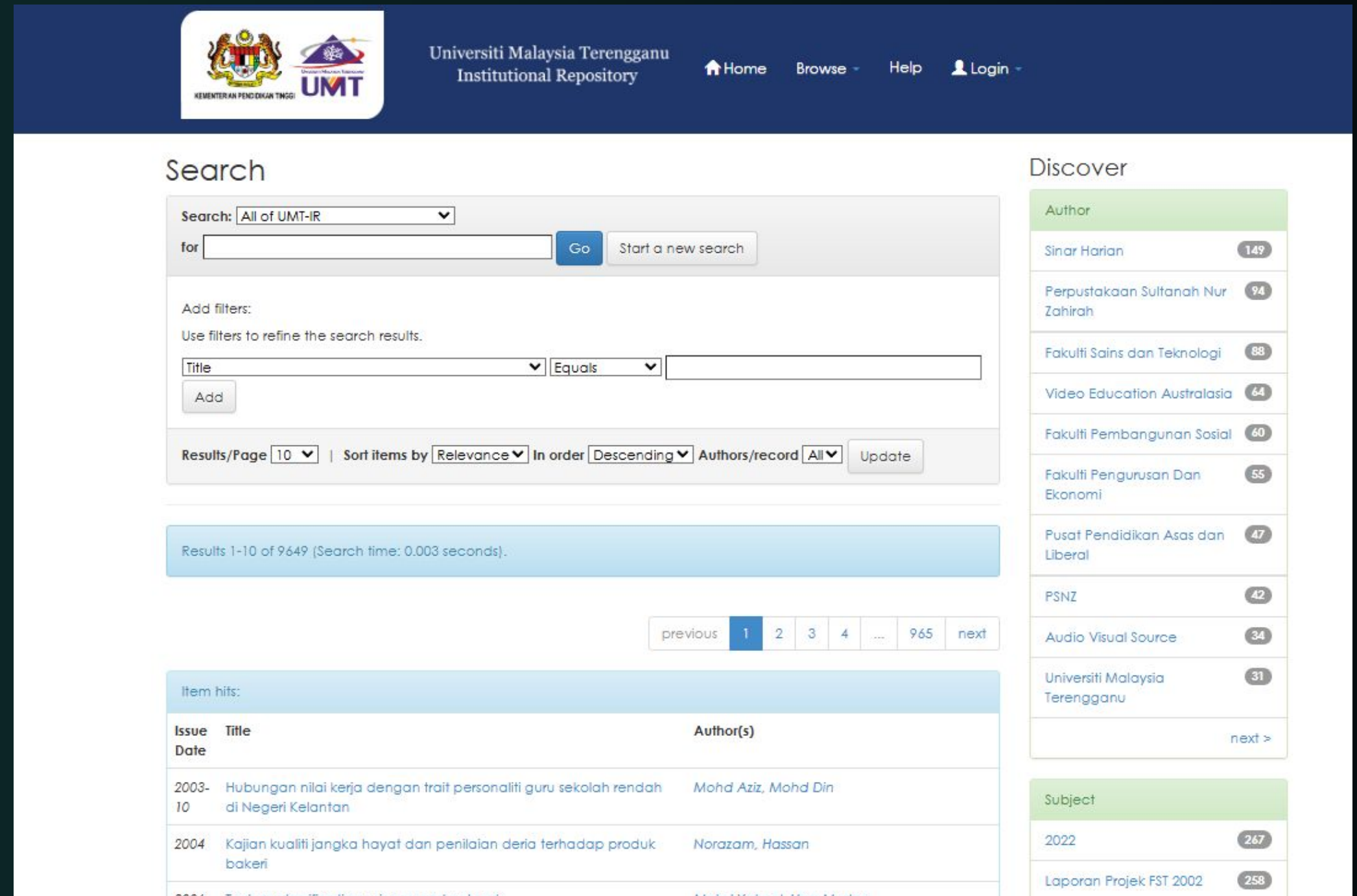
PROBLEMS

Poor user interface design



PROBLEMS

Lack of Dark Mode



The screenshot displays the homepage of the Universiti Malaysia Terengganu Institutional Repository. The header features the university's logo and name, along with navigation links for Home, Browse, Help, and Login. The main content area is divided into a Search section and a Discover section.

Search Section:

- Search: All of UMT-IR
- for [input field] [Go] [Start a new search]
- Add filters: Use filters to refine the search results.
- Title [input field] Equals [input field] [Add]
- Results/Page [10] | Sort items by [Relevance] In order [Descending] Authors/record [All] [Update]
- Results 1-10 of 9649 (Search time: 0.003 seconds).
- Navigation: previous 1 2 3 4 ... 965 next

Item hits:

Issue Date	Title	Author(s)
2003-10	Hubungan nilai kerja dengan trait personaliti guru sekolah rendah di Negeri Kelantan	Mohd Aziz, Mohd Din
2004	Kajian kualiti jangka hayat dan penilaian deria terhadap produk bakeri	Norazam, Hassan
2006	Texture classification using neural network	Mohd Yahya, Mas Munir

Discover Section:

- Author**
 - Sinar Harian 149
 - Perpustakaan Sultanah Nur Zahirah 94
 - Fakulti Sains dan Teknologi 88
 - Video Education Australasia 64
 - Fakulti Pembangunan Sosial 60
 - Fakulti Pengurusan Dan Ekonomi 55
 - Pusat Pendidikan Asas dan Liberal 47
 - PSNZ 42
 - Audio Visual Source 34
 - Universiti Malaysia Terengganu 31
 - next >
- Subject**
 - 2022 267
 - Laporan Projek FST 2002 258

SOLUTIONS

- ☐ Implement an advanced search system
- ☐ Include a proper formatting
- ☐ Implement dark mode



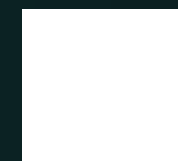
TARGET USERS



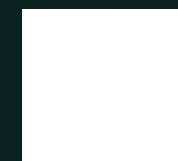
Student



Visitor



Administrator



Staff

PACT ANALYSIS

Proposal

Analysis
Report

Design &
Prototyping

Evaluation
Report

Person

- Sociology
- Psychological
- Physical and Cognitive Capabilities and Needs
- Mental Model
- Demographics and Responsibilities



PACT ANALYSIS

Proposal

Analysis
Report

Design &
Prototyping

Evaluation
Report

Activities

- Morning(6am-11.59am)
- Afternoon (12.00pm-5.59pm)
- Evening(6.00pm-8.59pm)
- Night(9.00pm-11pm)



PACT ANALYSIS

Proposal	Analysis Report	Design & Prototyping	Evaluation Report
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Context

Morning

- Home
- Bus
- Classroom

Afternoon

- Office
- Park
- Cafe

Evening

- Dining Room
- Living Room

Night

- Bedroom

PACT ANALYSIS

Proposal

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Technology

Front-End Technologies (React.js, Vue.js)

Back-end Technologies (Node.js, Django)

AI-Powered Search (Natural Language Processing)

Input Methods (Voice-based search, Touchscreen, Gesture-based Controls)

Output Mechanisms (Audio Feedback, Haptic Feedback, Visual Enhancements)

Content Management (Advanced Content Categorization, Multimedia Content Support, etc)

USABILITY GOALS



LEARNABILITY || EFFICIENCY || EFFECTIVENESS || SATISFACTION || MEMORABILITY



ANALYSIS

REPORT

PERSONA

Proposal

Analysis
Report

Design &
Prototyping

Evaluation
Report



Nelson
Lee

Computer Science
Student at UMT

Contact

+123-456-7890

Background Information

- Nelson is a final-year student who spends most of his time researching and writing reports for coursework. As a hostel resident, he relies on the UMT Institutional Repository to access academic papers and reference materials.
- He prefers using his laptop for research but often switches to mobile devices when away from his desk. Despite his technical background, he struggles with slow and outdated interfaces, especially when under deadline pressure. He values efficiency, accessibility, and user-friendly designs in digital platforms.

Motivations and Goals

- To efficiently access and utilize academic resources from the UMT Institutional Repository for coursework, research, and assignments without technical difficulties.
- Nelson is determined to excel in his studies and values a seamless research experience. He seeks a fast, intuitive, and mobile-friendly repository system to maximize productivity, and enhance learning efficiency, especially during late-night study sessions.

No 99, Taman Bukit Segar, Taman
Bukit Segar, Cheras, Kuala Lumpur

Activity Timeline

- 7.00 a.m.**
Wake up, have breakfast, and do some light exercise.
- 8.00 a.m.**
After having a bath, head off to university to attend class and lecture.
- 1 p.m.**
Lunch Break.
- 2 p.m.**
Continue attending the rest of the lectures and classes. Attend a society meetup, study, or doing assignment
- 6 p.m.**
Head home and spend the rest of the free time doing leisure activities or working on assignments.

Skills

- Basic Coding & Technical Writing
- Adaptability to New Software
- Analytical Thinking
- Research & Information Gathering

Frustration and Pain Point

- Slow System Performance** – Repository takes too long to load on hostel Wi-Fi, making research frustrating.
- Unintuitive Navigation** – The interface is cluttered, making it difficult to find relevant research papers.
- Poor Mobile Experience** – Searching for journals on a smartphone is frustrating due to poor mobile optimization.
- Lack of Save or Bookmark Feature** – Nelson frequently loses track of useful articles because the system does not save his search history.
- Eye Strain at Night** – The repository does not have dark mode, making late-night research uncomfortable.

Attitude

- Goal-Driven** – Focuses on academic success and is willing to adapt to new technologies that enhance productivity.
- Easily Frustrated by Slow Systems** – Long loading times and difficult navigation impact his motivation and focus.
- Independent Learner** – Prefers self-guided research and expects an intuitive system that allows easy access to academic materials.

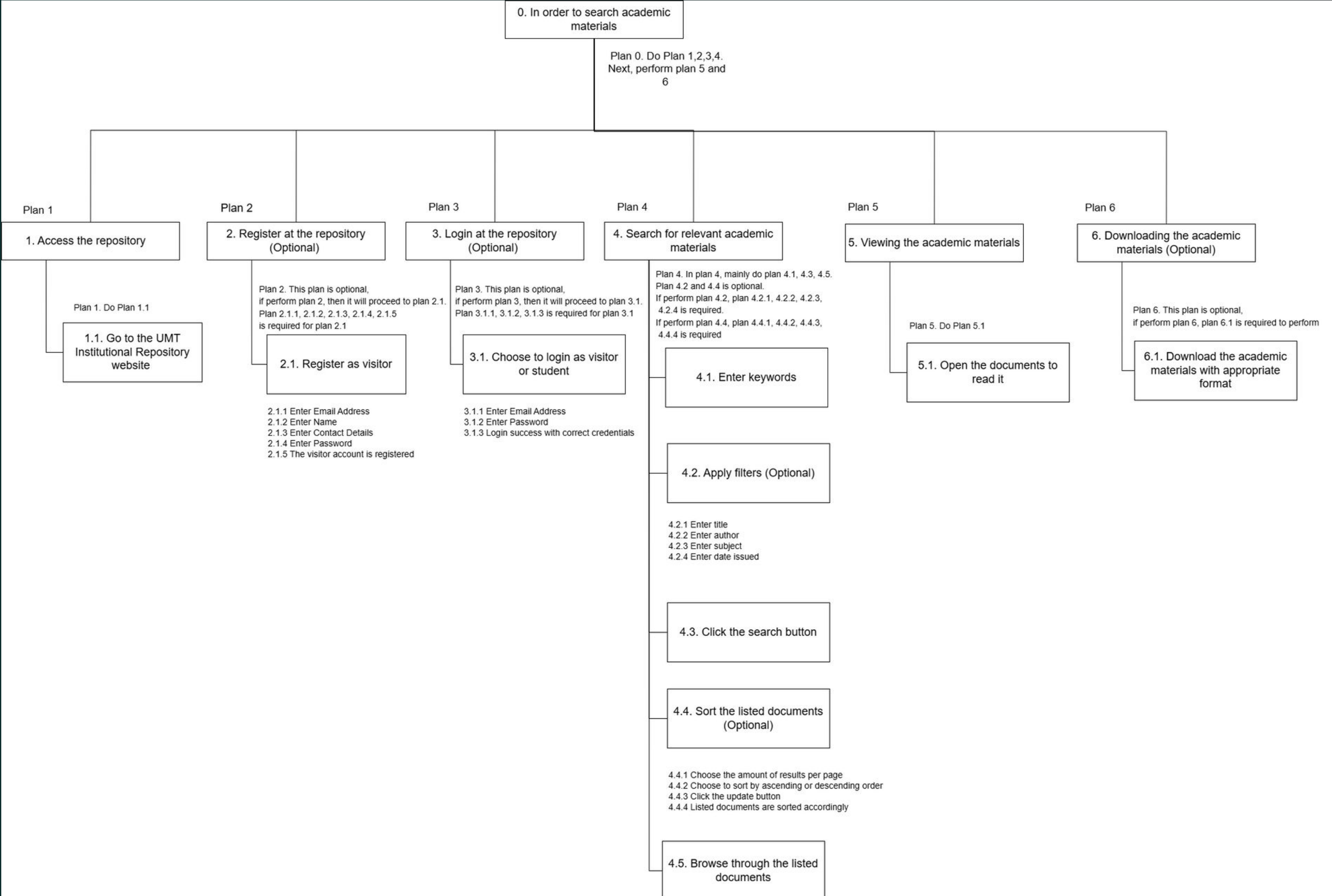


TASK ANALYSIS

0. In order to search academic materials
1. Access the repository
2. Register at the repository (Optional)
3. Login at the repository (Optional)
4. Search for relevant academic materials
5. Viewing the academic materials
6. Downloading the academic materials (Optional)



HTA DIAGRAM



SCENARIO OF THE CURRENT TASK



ACTOR : NELSON

LOCATION: HOSTEL ROOM

GOAL: Complete assignments and prepare for examinations

PROBLEMS:

- Inconvenient to read the text on a smaller screen
- Inefficient search functionality
- Lack of support features (FAQ or Chatbot)



ENVIRONMENT ANALYSIS



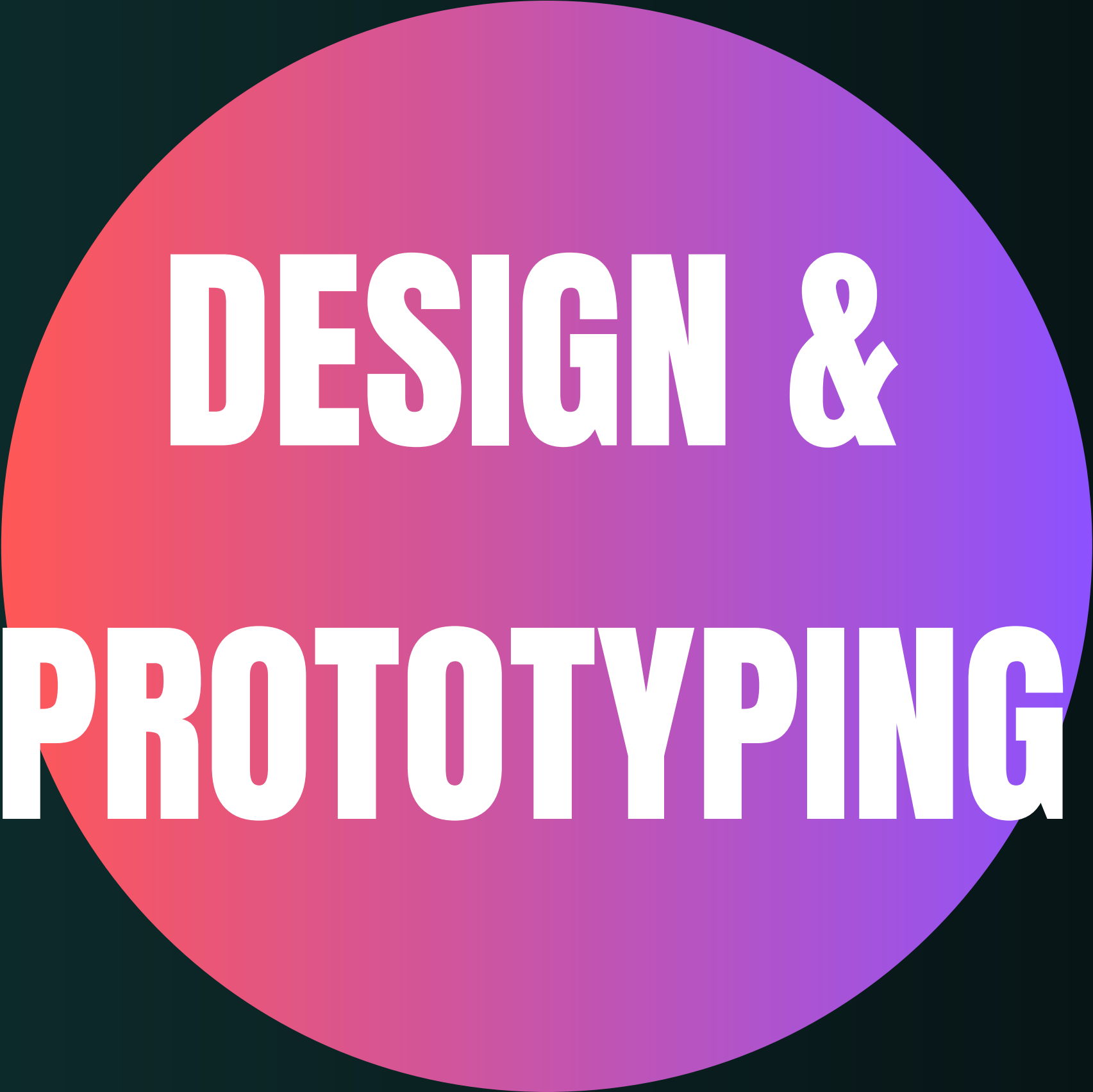
ACTOR : NELSON

LOCATION: HOSTEL ROOM

GOAL: CONDUCT RESEARCH, COMPLETE
ASSIGNMENTS, PREPARE FOR
PRESENTATIONS

PROBLEMS: NETWORK, OUT OF FOCUS,
MOBILE USABILITY, ACCESSIBILITY ISSUES





DESIGN & PROTOTYPING

STORYBOARD + PROTOTYPE



Canva_HomePage(Storyboard)

Canva_Repository(Storyboard)

Figma_Both (ProtoType)



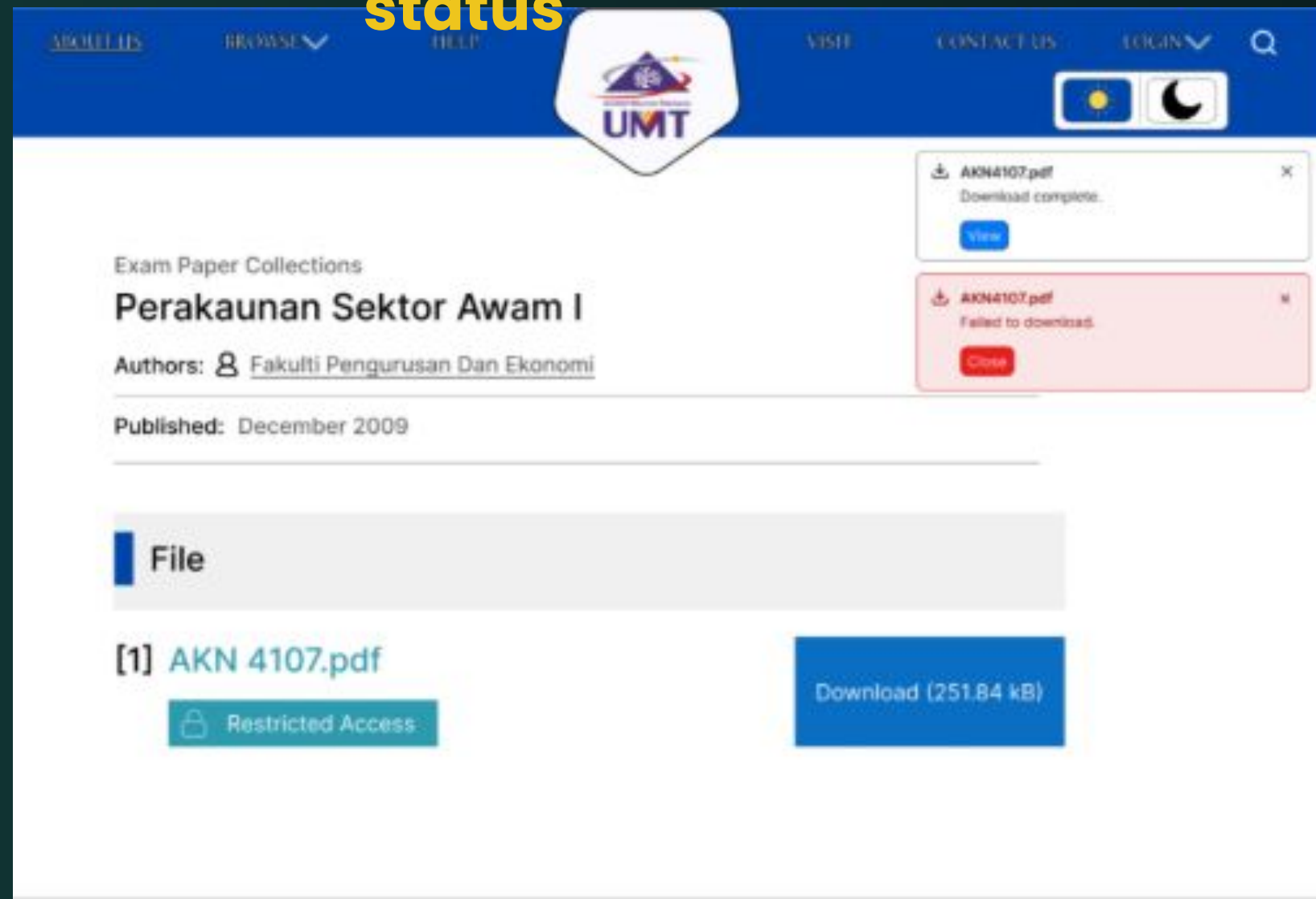


EVALUATION

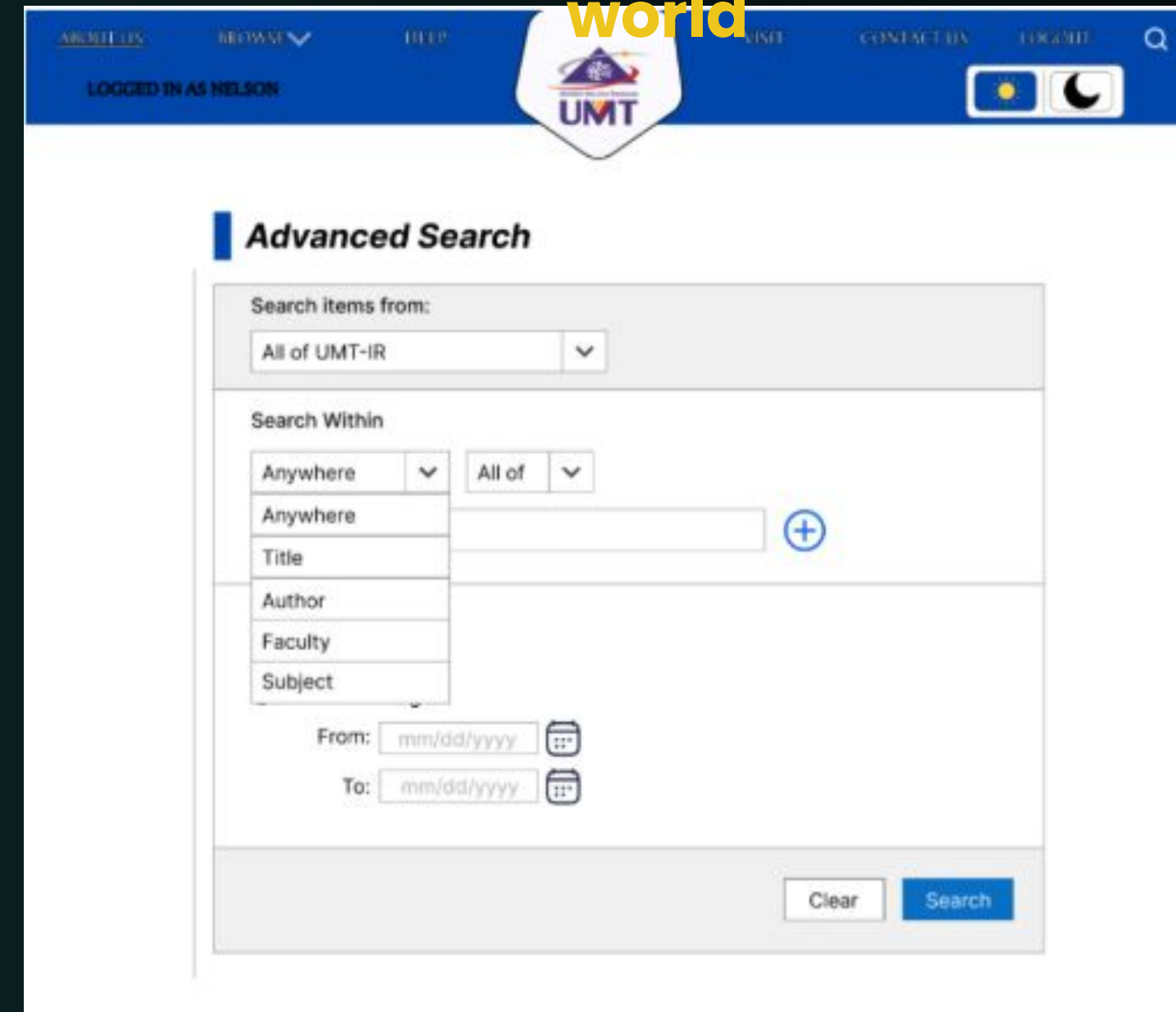
REPORT

NIELSEN'S HEURISTIC EVALUATION

1. Visibility of system status



2. Match between system and the real world



NIELSEN'S HEURISTIC EVALUATION

3. User control and freedom

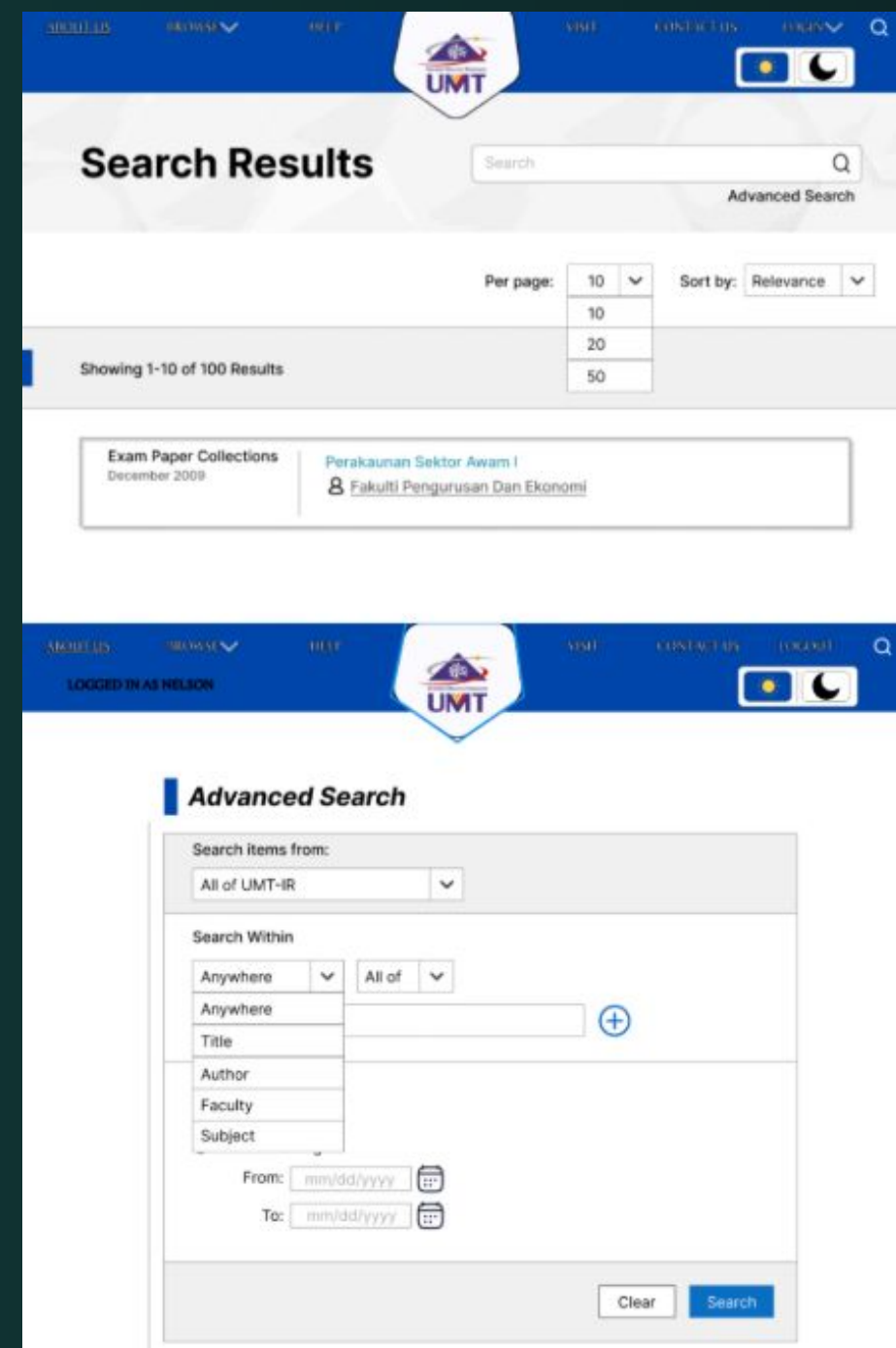
4. Consistency and standards

The screenshot displays the 'Advanced Search' section of the UMT Repository website. It features a search bar at the top with a magnifying glass icon. Below the search bar, there are several filter options: 'Search items from:' with a dropdown menu set to 'All of UMT-IR'; 'Search Within' with two dropdown menus set to 'Anywhere' and 'All of'; and 'Publication Date' with radio buttons for 'All Dates' (selected) and 'Custom Range'. The 'Custom Range' section includes 'From:' and 'To:' date pickers. At the bottom, there are 'Clear' and 'Search' buttons.

This screenshot shows the 'Advanced Search' section of the UMT Repository website, similar to the one on the left. It includes a search bar, a dropdown menu for 'Search items from:' set to 'All of UMT-IR', and 'Search Within' dropdowns set to 'Anywhere' and 'All of'. The 'Publication Date' section has radio buttons for 'All Dates' (selected) and 'Custom Range'. The 'Custom Range' section includes 'From:' and 'To:' date pickers. At the bottom, there are 'Clear' and 'Search' buttons.

NIELSEN'S HEURISTIC EVALUATION

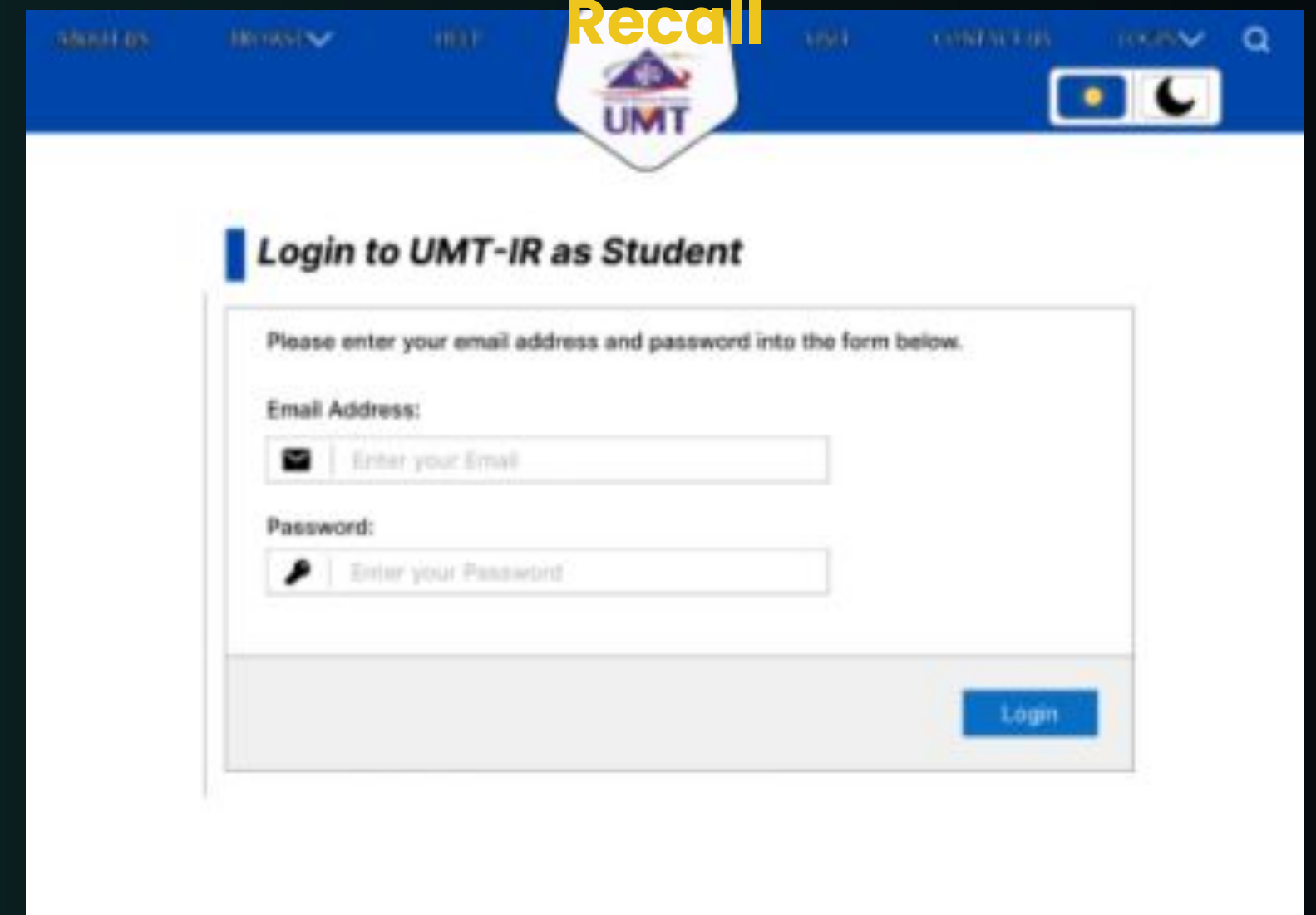
5. Error Prevention



The screenshot shows the 'Search Results' page of the UMT Repository. It features a search bar at the top with a magnifying glass icon. Below the search bar, there are filters for 'Per page' (10, 10, 20, 50) and 'Sort by' (Relevance). A message indicates 'Showing 1-10 of 100 Results'. Below this, there are two search results: 'Exam Paper Collections December 2009' and 'Perakaunan Sektor Awam I 8 Fakulti Pengurusan Dan Ekonomi'. At the bottom, there is an 'Advanced Search' section with various filters like 'Search items from', 'Search Within', 'From', and 'To', along with 'Clear' and 'Search' buttons.

6. Recognition rather than

Recall

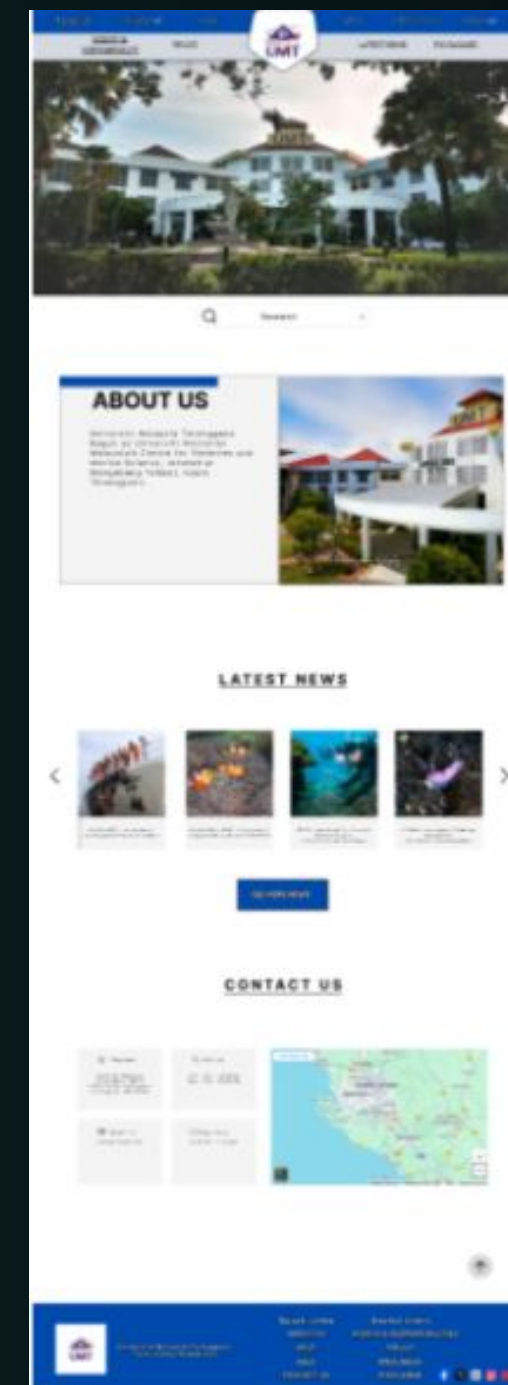
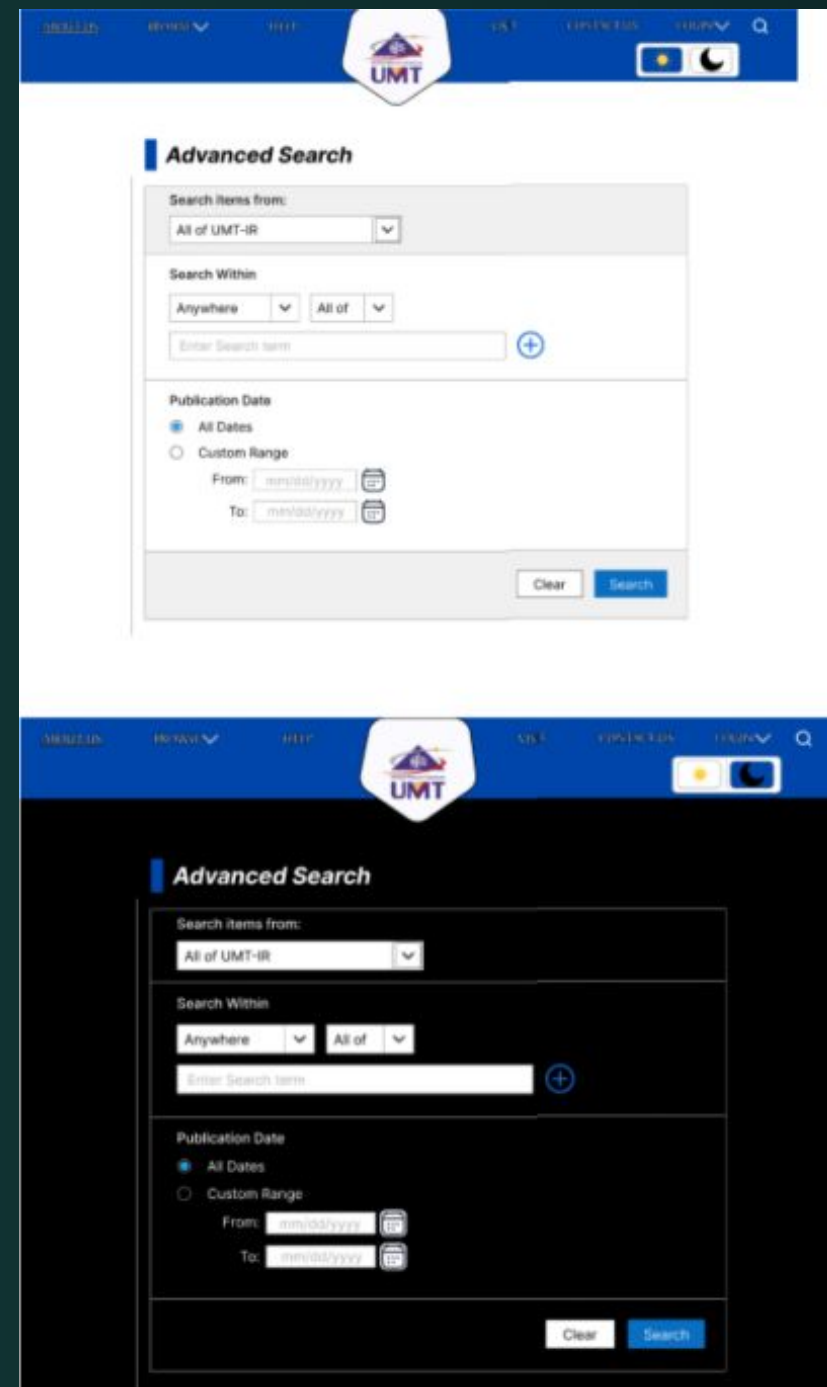


The screenshot shows the 'Login to UMT-IR as Student' page. It features a login form with fields for 'Email Address' and 'Password'. Below the fields, there is a 'Login' button. The page also includes a header with the UMT logo and navigation links like 'About Us', 'Browse', 'Help', 'Visit', 'Contact Us', and 'Login'.

NIELSEN'S HEURISTIC EVALUATION

7. Flexibility & efficiency of use

8. Aesthetic & Minimalist design



2025



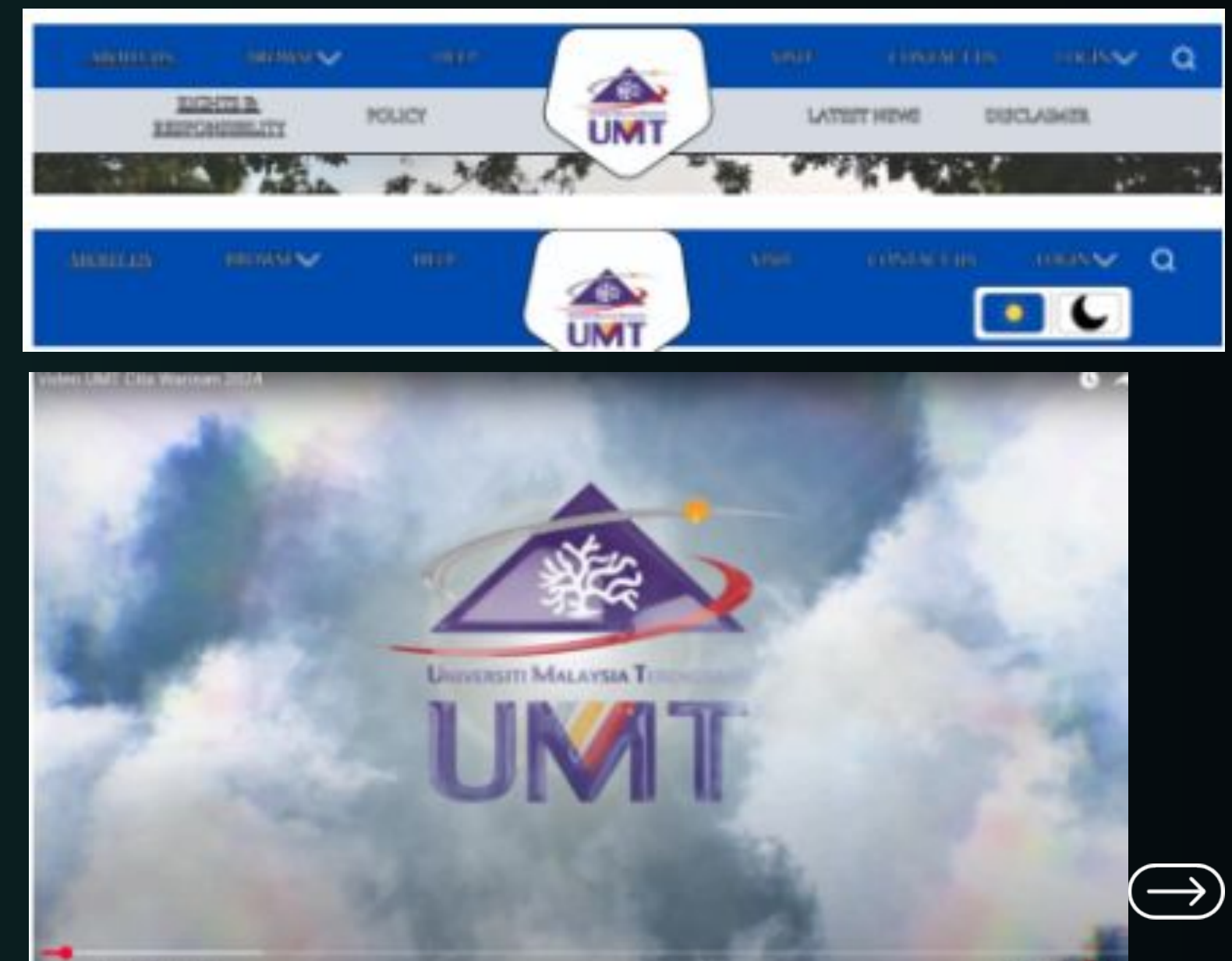
NIELSEN'S HEURISTIC EVALUATION

9. Help users, recognize diagnose,
and recover from errors

The screenshot shows the 'Login to UMT-IR as Student' page. It features a header with the UMT logo and navigation links. The main content area contains a login form with the following elements:

- A heading: **Login to UMT-IR as Student**
- A prompt: *Please enter your email address and password into the form below.*
- An 'Email Address:' label followed by a text input field containing the placeholder 'Enter your Email'.
- A 'Password:' label followed by a password input field containing the placeholder 'Enter your Password'.
- A red error message at the bottom: **Incorrect email address or password. Please try again**.
- A blue 'Login' button.

10. Help & Documentation



USABILITY TESTING VIDEO CLIP



With FaceCam:

UsabilityTestingOld+NewSystem.mp4



CONCLUSION



OPENING STATEMENT



CHALLENGES



CLOSING STATEMENT

HCI – improve user experience in real systems like the UMT Institutional Repository

identifying subtle usability issues that users often overlook, such as inconsistent design or unclear navigation.

Another was balancing visual appeal with functional simplicity during the redesign process.

taught me the value of user-centered design, and how applying the right usability principles can make a digital system more intuitive, efficient, and user-friendly.



THANK YOU

Q & A
SESSION