UTM UNIVERSITI TEKNOLOGI MALAYSIA RESEARCH UNIVERSITY	**SCHOOL OF COMPUTING** **FACULTY OF ENGINEERING** **UNIVERSITI TEKNOLOGI MALAYSIA**

PSM 1 (SCSJ 3032)
PROJECT PROPOSAL FORM

Session/Semester: ……2022/2023-2……

Instruction: Please complete and submit this form to the departmental PSM committee. The proposal must be reviewed by the supervisor before submission.

SECTION A: STUDENT INFORMATION

Name	Adib Bin Morshed		
Year/Course	3-SECJ		
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Proposal No. 1 *(Please follow your preference. Proposal No. 1 – the highest priority, followed by Proposal No. 2 Each student may propose a maximum of 2 topics).*

SECTION B: PROJECT DETAILS

Supervisor Name:	**Prof. Madya. Ts. Dr. Mohd Shahizan bin Othman**
Project Title:	Faculty of Computing Staff Publication Dashboard

Problem Background and Proposed Solution:

Problem Statement:

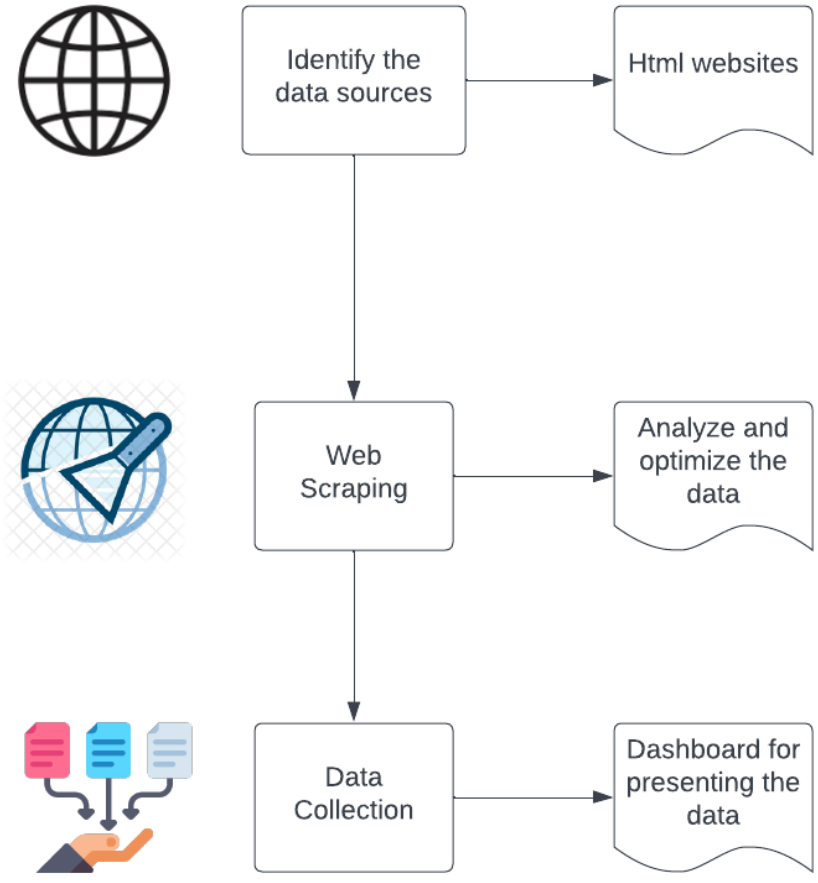
The Faculty of Computing is one of the fundamentals of UTM. The staff of the faculty of computing not only excels in academic teaching but also in research. University Teknologi Malaysia (UTM) is a research-intensive university. The Faculty of Computing at the Universiti Teknologi Malaysia (UTM) has a large number of faculty members who publish their research papers, articles, and other academic works. Keeping track of all the publications from each

faculty member can be a challenging task, particularly when this information is spread across multiple websites and databases. Therefore, there is a need for an efficient and automated method for collecting, organizing, and storing all the publication data of the faculty of computing at UTM.

Solution:

My solution to this problem is to use web scraping techniques to automatically extract the publication data from various sources, such as the UTM website, Google Scholar, and other relevant databases. This can be achieved using tools such as Python's Beautiful Soup, Scrapy, and Selenium, which allow for the automated extraction of data from web pages.

The solutions proposed:



1. **Data sources:** Identify the sources of the publication data, such as UTM's faculty directory, Google Scholar, and other academic databases.

2. **Web Scraping:** Use web scraping tools to extract the relevant data from each source.
3. **Data Storage:** Store the extracted data in a database or spreadsheet for easy access and analysis. This will enable the creation of reports, summaries, and other visualizations of the publication data.
4. **Creation of dashboard:** Create a dashboard with appropriate data visualization types such as bar charts, line charts, or tables.

Objectives:

- To gather and analyze data on the publication output of faculty members in the Faculty of Computing at UTM.
- To provide a centralized and easily accessible platform for faculty members to track their own publication output as well as the output of their colleagues.
- To enable the faculty to identify research strengths and areas for improvement within the department.
- To support accreditation and performance evaluations by providing reliable and up-to-date data on faculty publication output.
- To provide a comprehensive and user-friendly platform for tracking and analyzing publication output within the Faculty of Computing at UTM, with the ultimate goal of improving research outcomes and informing decision-making.

Scopes:

The scope of the web scraping project for the faculty of computing staff journal publication at UTM includes the collection and analysis of publication data from various sources and the creation of a user-friendly dashboard. The project will prioritize data security and privacy while also enabling the faculty to track their own publication output, identify research strengths, and inform decision-making.

- Web scraping data from various sources including the UTM website, Google Scholar, and other academic databases.
- Creating a dashboard that allows users to view and analyze publication data based on various criteria such as author, publication year, journal, and citation count.
- The project will use appropriate web scraping and data visualization tools based on the requirements and constraints of the project.

Project Requirements:

Software	**:** Visual Studio Code, Xampp
Hardware	**:** Ryzen 7, Ram 16GB
Technology/Technique/ Method/Algorithm	**:** ReactJs, nodeJs, python, agile development method
Network Elements	**:** Wifi, Mobile data
Security Elements	**:** None

Project Type: *(Please tick one)*

[X] System Development

[ ] Research

Project Area:

Area **:** Data Science And Analytics.

(e.g.: *Security – Cryptography*)

SECTION C: STUDENT ACKNOWLEDGEMENT

I confirm that this project is:

[ ] My own idea

[X] Proposed by the supervisor: **Prof. Madya. Ts. Dr. Mohd Shahizan bin Othman**

Date: 07/04/2023 Student Signature:

Adib

SECTION D: SUPERVISOR ACKNOWLEDGEMENT

I …… confirm that I have reviewed this student's project proposal and therefore agree for the proposal to be submitted for evaluation.

Date **:** …… Signature **:** ……

Official Stamp

SECTION E: EVALUATION PANEL APPROVAL

Outcome:

[ ] Full Approval
[ ] Conditional Approval (Minor)
[ ] Conditional Approval (Major)

[ ] Fail

Notes (*Please state reasons for conditional or failed approval)*

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Evaluation Panel:

1. ……..
2. ……..

Date: …… Signature: …..……

Name: …..…….

SECTION F: FOR FACULTY COMMITTEE ONLY

Date Received: …….

Signature : ……. (Official Stamp)