

# Field Testing Report

NAME: MUHAMMAD IKRAM BIN MD ASRAN

MATRIC NO:291666

PROJECT TITLE: EMPLOYEE AVAILABILITY DASHBOARD

SUPERVISOR: PN DR JULIANA BINTI ABDUL WAHID

## 1. OVERVIEW OF THE APPLICATION

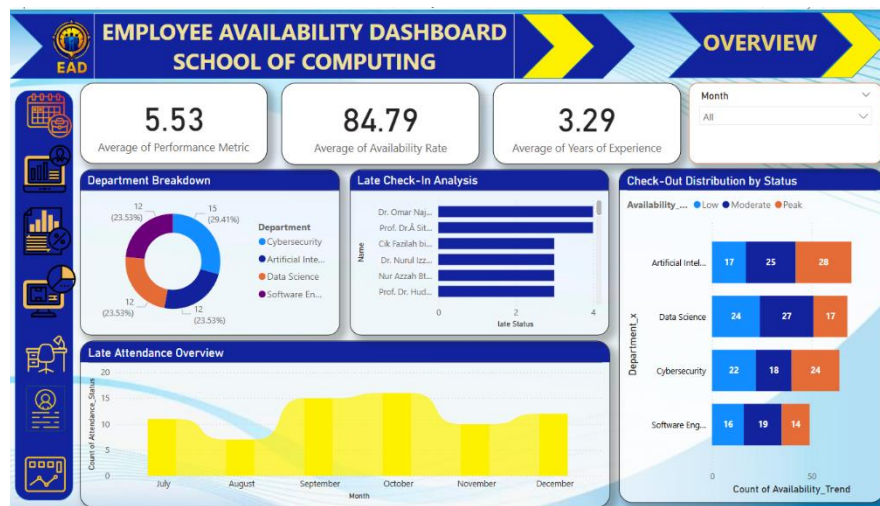


Figure 1. Overview page of the Employee Availability Dashboard

The Employee Availability Dashboard (EAD) is an interactive tool designed to streamline and optimise the management of lecturer schedules, availability, and leave requests within an academic institution, specifically for the School of Computing (SOC). By offering administrators, lecturers, and department heads a centralized platform, the dashboard provides an efficient way to track and manage staffing requirements. It significantly reduces the manual workload typically associated with traditional scheduling methods, ensuring that staff availability is accurately recorded and easily accessible.

The dashboard features various functionalities, including time availability tracking, leave management, task allocation, and predictive analytics. These features empower administrators and department heads to make data-driven decisions, preventing scheduling conflicts and ensuring resource optimization. By automating key processes such as leave approvals and task distribution, the EAD enhances coordination and promotes effective management of academic resources, leading to improved operational efficiency within the institution.

## 2. EVALUATION METHOD

. The Employee Availability Dashboard (EAD) was evaluated using a structured questionnaire-based survey designed to assess user acceptance, usability, and overall satisfaction with the system. The evaluation aimed to determine how effectively the dashboard performs across its core modules and how well it supports the management of lecturer schedules, availability, and leave requests.

A total of 5 expert participants were involved in this evaluation. The participants were lecturers from the School of Computing (SOC), selected for their familiarity with the scheduling and resource management processes within the academic environment. Each participant interacted with the dashboard based on their role and provided feedback through a role-specific questionnaire. The questions were directly aligned with the modules they tested.

The questionnaire was divided into three sections:

### Section A: Demographic Information

This section collected basic information from the participants to understand their background and experience level. Questions included:

- Gender
- Age
- Employment Status (e.g., full-time or part-time)
- Familiarity with the dashboard

### Section B: Dashboard Task List

This section focused on the specific tasks that the lecturers were expected to perform using the **Employee Availability Dashboard**. The tasks included:

- Updating lecturer availability
- Submitting and managing leave requests
- Reviewing and managing administrative task assignments
- Tracking attendance and checking for scheduling conflicts

### Section C: Feedback Questionnaire

This section aimed to gather feedback on the dashboard's usability, design, and overall satisfaction. The feedback was collected using a **5-point Likert scale**, where (1) indicated "strongly disagree" and (5) indicated "strongly agree." Questions in this section focused on:

- Ease of use
- Visual consistency of data
- Accuracy of real-time updates
- Usefulness of task allocation features
- Overall satisfaction with the dashboard design and functionalities

The survey results were compiled and analyzed using descriptive statistics to assess the performance and user satisfaction for each module. This evaluation helped identify the strengths of the **Employee Availability Dashboard** and highlighted potential areas for improvement, ensuring that it effectively meets its goals in optimizing scheduling and resource management for the academic institution.

### a. Type of evaluation

The evaluation of the Employee Availability Dashboard (EAD) was conducted using User Acceptance Testing (UAT). UAT is a critical evaluation method where real users interact with the system to assess whether it meets their needs and performs as expected in real-world scenarios. This method provides valuable insights into the system's usability, functionality, and overall user satisfaction.

UAT allows for an understanding of how well the Employee Availability Dashboard supports lecturers' day-to-day activities in managing their schedules, coordinating tasks, and making data-driven decisions based on the dashboard's functionality. The feedback gathered from this evaluation will help identify any usability issues, potential improvements, and areas where the system effectively meets the expectations of its users. The evaluation was designed to ensure that the Employee Availability Dashboard (EAD) fulfills its intended purpose in optimizing scheduling, leave management, and task allocation for the School of Computing (SOC).

### b. Objective of the evaluation

The primary objectives of this evaluation were to:

#### ➤ Assess the Functionality of the Dashboard:

- Evaluate how well the EAD tracks lecturer availability, including attendance and leave statuses.
- Test the system's ability to allow lecturers to submit and manage leave requests efficiently.
- Verify the system's task allocation features, ensuring that administrative tasks are distributed according to lecturer availability.
- Evaluate the time tracking and predictive analytics feature to assess its effectiveness in forecasting future availability trends and optimizing resource allocation.

#### ➤ Evaluate Usability:

- Assess the EAD's ease of use, focusing on how intuitively users can navigate through the system to update their availability, request leave, and manage tasks.
- Test the visual consistency of the dashboard, ensuring that data is clearly presented and easy to interpret.
- Gather feedback on the dashboard's layout, design, and functionality from the perspective of both lecturers and administrators.

#### ➤ Test the System's Real-World Application:

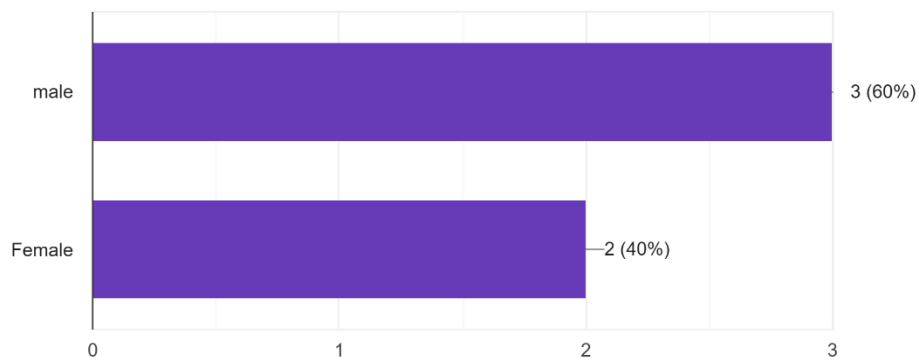
- Ensure that the system performs as expected under real-world conditions, with actual users interacting with it to complete typical tasks related to availability tracking, leave management, and task allocation.

- Evaluate the response time for updates and task assignments, ensuring the system works smoothly and provides timely updates in a fast-paced academic environment.
  - Measure Overall User Satisfaction:
- Assess the overall satisfaction of the expert participants with the dashboard's design, functionality, and ability to meet their needs.
- Identify any areas for improvement or additional features that may enhance the system's usability and performance.

### c. Participants

A total of 5 expert participants were involved in this evaluation, representing key roles within the School of Computing (SOC). The participants were selected for their expertise in academic scheduling and resource management. Below is the demographic breakdown of the participants:

Gender  
5 responses



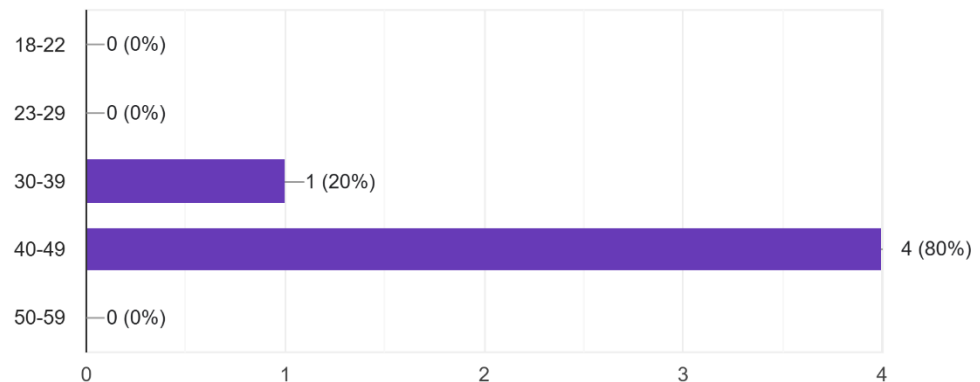
*Figure 2. User Gender Distribution of Participant*

- 60% of participants identified as male (3 out of 5 respondents).
- 40% of participants identified as female (2 out of 5 respondents).

This distribution suggests a higher representation of male participants compared to female participants in the evaluation, though it still maintains a reasonable balance between the genders for a small sample size. If the goal is to achieve more balanced gender representation, this could be a point to consider for future evaluations.

## Age

5 responses

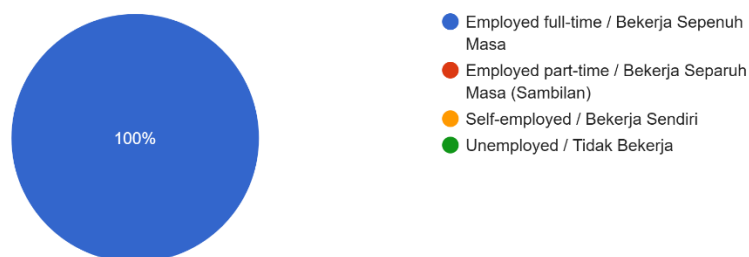
*Figure 3. Age Distribution of Participants*

- 80% of participants are in the 40-49 age group (4 out of 5 respondents).
- 20% of participants are in the 30-39 age group (1 out of 5 respondents).

This indicates that the majority of the participants are in the 40-49 age range, suggesting that the evaluators are likely to have more experience and may offer insights from a more seasoned perspective.

## Employment Status Status Pekerjaan

5 responses

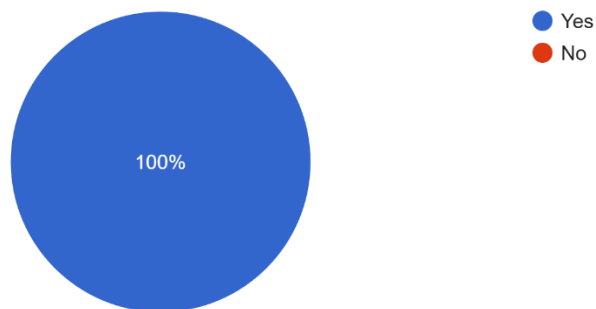
*Figure 4. Employment Status of Participants*

- 100% of participants are employed full-time (5 out of 5 respondents).

*This suggests that all the participants in this evaluation are likely to have significant experience in their respective roles, and they are likely familiar with the practical aspects of scheduling and resource management.*

Are you familiar with the Dashboard

5 responses



*Figure 5. Familiarity with the dashboard*

- 100% of participants are familiar with the dashboard.

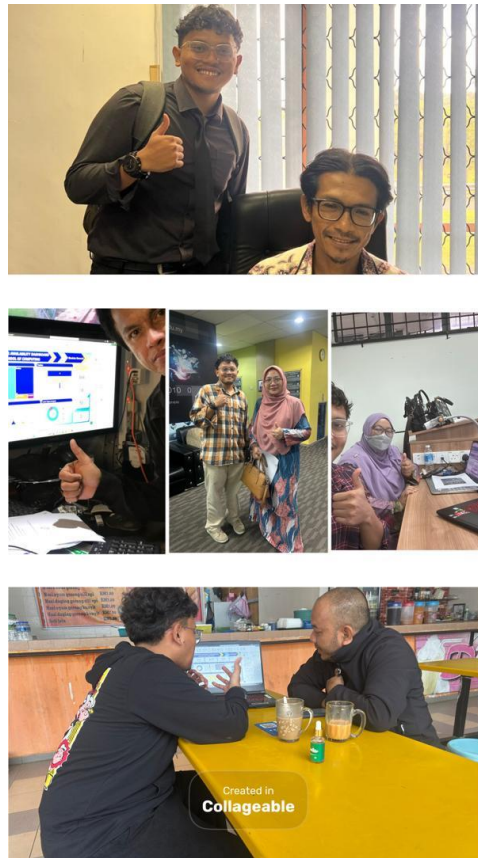
This indicates that all participants in the evaluation had prior knowledge or experience with the Employee Availability Dashboard (EAD), which likely made it easier for them to assess its functionalities and usability based on their existing familiarity

#### **d. Materials**

The materials used to evaluate the Employee Availability Dashboard (EAD) consisted of an online questionnaire created using Google Forms. This platform was chosen for its simplicity, ease of use, and flexibility in designing customized surveys. Google Forms enabled the collection of structured data from the expert participants, making it a convenient tool for gathering feedback.

The questionnaire was divided into multiple sections, each aligned with specific functionalities of the EAD, and it was tailored for the three key user roles: lecturers, administrators, and department heads. These question types provided flexibility in gathering both quantitative and qualitative data, ensuring that the evaluation covered all relevant aspects of the Employee Availability Dashboard (EAD). As a result, the responses were clear and well-structured, allowing for efficient analysis and providing valuable insights into the system's performance.

### e. Procedure for conducting the evaluation



*Figure 6. Participants of The Employee Availability Dashboard*

The evaluation of the Employee Availability Dashboard (EAD) followed a structured process consisting of several key steps to ensure meaningful and valid results. The following steps were used in the evaluation process:

#### **Step 1: Define what will be evaluated**

To determine if an evaluation should be conducted based on the current functionality and available information, we began by clearly outlining the Employee Availability Dashboard features to be evaluated. These included:

- Availability Tracking: Managing lecturer availability and attendance.
- Leave Management: Submitting and managing leave requests.
- Task Allocation: Allocating teaching, research, and administrative tasks based on lecturer availability.
- Predictive Analytics: Forecasting future availability trends and resource allocation.
- User Interface: Ease of navigation and overall dashboard design.

### Step 2: Determine Evaluation Questions

To achieve the evaluation objectives, a set of questions was prepared to assess the dashboard's core functionalities. These questions were designed to gather information on the user's ability to perform key tasks effectively and evaluate whether the dashboard meets its usability expectations. The questions also examined the clarity, accuracy, and success of user interactions.

### Step 3: Determine Appropriate Measurement Methods and Procedures

At this stage, it was determined that Google Forms would be used to evaluate the structured online questionnaires. Considerations included accessibility, ease of use, and response tracking. The survey was distributed to 5 expert participants, including lecturers, administrators, and department heads. Ethical aspects such as data privacy and informed consent were taken into account. Data collection was quantitative, relying on Likert scale responses to measure usability and functionality.

### Step 4: Collect Data

Data was collected using Google Forms. Each participant completed a role-specific questionnaire based on their interaction with the dashboard. The questionnaire was designed to evaluate task completion, dashboard navigation, feature clarity, and user satisfaction. All responses were recorded in real time, allowing quick access for analysis and visualization.

### Step 5: Process Data and Analyze Results

Data collected from the responses was cleaned and verified for consistency and accuracy. Quantitative data was sorted and visualized using graphs and charts. Statistical summaries were created to identify patterns, common responses, and potential usability issues. The analysis focused on determining whether the Employee Availability Dashboard met its functional requirements and user experience goals.

### Step 6: Interpret and Disseminate the Results

The objective is to interpret the data gathered from the evaluation and prepare the results for reporting. The results were analyzed based on the original evaluation questions and objectives. Before presenting the findings, a list of suggested improvements was developed to address any usability issues identified. The findings were documented in a formal written report. To support the clarity of the analysis, pie charts were used to visually represent user demographics and response trends. These visual aids helped highlight key usability patterns and provided a clear overview of the Employee Availability Dashboard's performance, contributing to recommendations for future refinement.

### Step 7: Apply Evaluation Findings

The evaluation results were used to identify the strengths and weaknesses of the Employee Availability Dashboard (EAD). Suggestions for improvement were considered and aligned with the original evaluation objectives. These findings can be used to inform future updates, enhance the user experience, and ensure the dashboard continues to meet the needs of lecturers, administrators, and department heads.

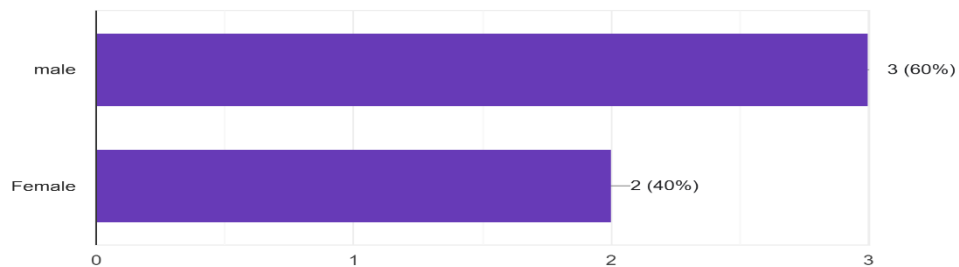


### 3. RESULTS AND FINDINGS

#### 1. Section A: Demographic and Background Information

##### A)gender

Gender  
5 responses



Gender	Male	Female
No. of Respondent	3	2
Percentage (%)	60%	40%

Figure 7: shows the result of the gender from 5 respondents who be conducted in this survey. There are 60% out of 100% or respondents are male while 40% out of 100% or 12 respondents are female.

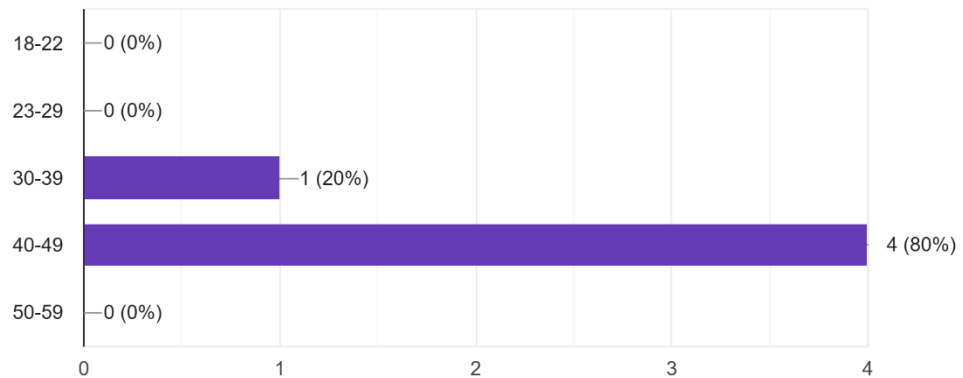
From the evaluation survey data, we can conclude that the gender distribution of participants was fairly balanced, with 60% of respondents being male and 40% being female. This suggests that the survey included a diverse group of participants, though there was a higher representation of male respondents (3 out of 5). Given the relatively small sample size, this distribution may not fully represent the general gender diversity of the larger user base. However, it provides a reasonable balance for evaluating usability and functionality based on gender.

This information can be used to understand how the Employee Availability Dashboard (EAD) is perceived across genders, although further studies with a larger sample size would be beneficial to ensure that the system is universally usable and well-received.

## b)Age

Age

5 responses



Age	30-39	40-49
No. of Respondent	1	4
Percentage (%)	20%	80%

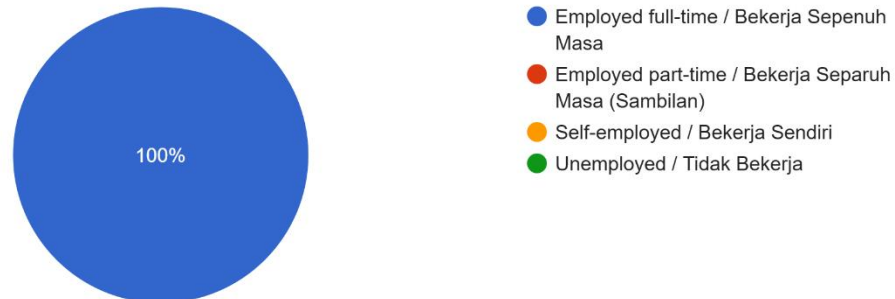
we can conclude that the age distribution of the participants in the evaluation is heavily skewed towards the 40-49 age group, with 80% of respondents (4 out of 5) falling within this age range. Only 20% of participants (1 out of 5) are in the 30-39 age group. This suggests that the majority of the respondents are likely to have more experience and expertise in their respective academic roles, which could influence their perspectives on the Employee Availability Dashboard (EAD).

Given the strong representation from the 40-49 age group, the feedback is likely to reflect the views of a more experienced demographic. However, this distribution also indicates that younger age groups (such as those in the 18-29 or 30-39 ranges) were underrepresented in the evaluation. To gain a broader understanding of how the EAD serves users from different age demographics, future evaluations might consider including a more diverse age group.

## c) Employment Status

Employment Status Status Pekerjaan

5 responses



Employment Status	Employed full-time
No. of Respondent	5
Percentage (%)	100%

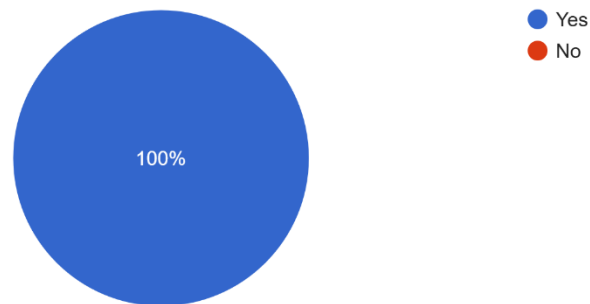
From the survey data, it is evident that all of the participants (100%) are employed full-time. This indicates that the Employee Availability Dashboard (EAD) was evaluated by individuals who are actively engaged in full-time academic roles. The homogeneous employment status of the participants suggests that the feedback is reflective of the experiences of full-time academic staff, who may have a different perspective on task allocation and availability management compared to part-time or self-employed individuals.

As the entire sample is composed of full-time employees, the evaluation provides valuable insights from those who may have more consistent availability and work responsibilities. However, for a more comprehensive understanding of the EAD's effectiveness, future evaluations might consider including part-time or self-employed staff to capture a wider range of user experiences.

## D)Are you familiar with the Dashboard

Are you familiar with the Dashboard

5 responses



Are you familiar with the Dashboard	yes
No. of Respondent	5
Percentage (%)	100%

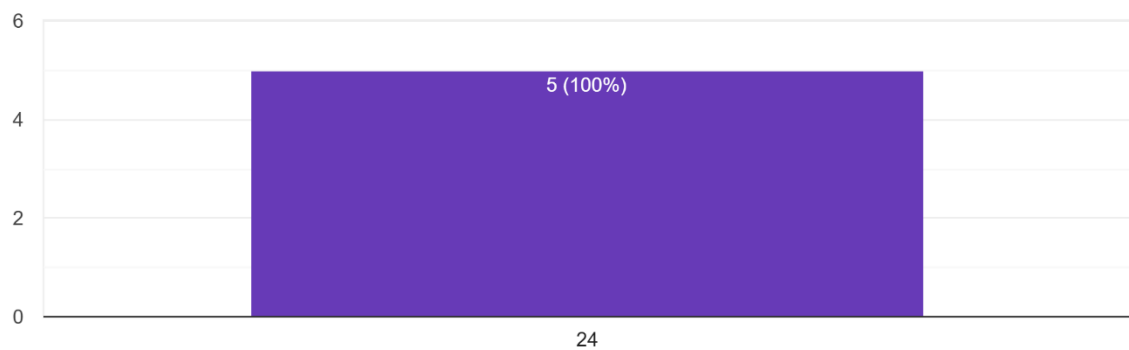
From the results, it is clear that all participants (100%) are familiar with the dashboard. This suggests that the respondents have prior knowledge or experience with the Employee Availability Dashboard (EAD), which likely facilitated their ability to evaluate its features and functionality. Since all participants were familiar with the system, their feedback may reflect insights based on their ongoing usage or understanding of the system, which can be valuable for improving the dashboard. However, to ensure that future evaluations are more representative, it might be beneficial to include users with varying levels of familiarity, including those who have not used the system previously.

## Section B: Dashboard Task

A)How many 'moderate' Lecturers are in the Cyber Security department for checkout distribution?

How many 'moderate' Lecturers are in the Cyber Security department for checkout distribution?(overview page)

5 responses



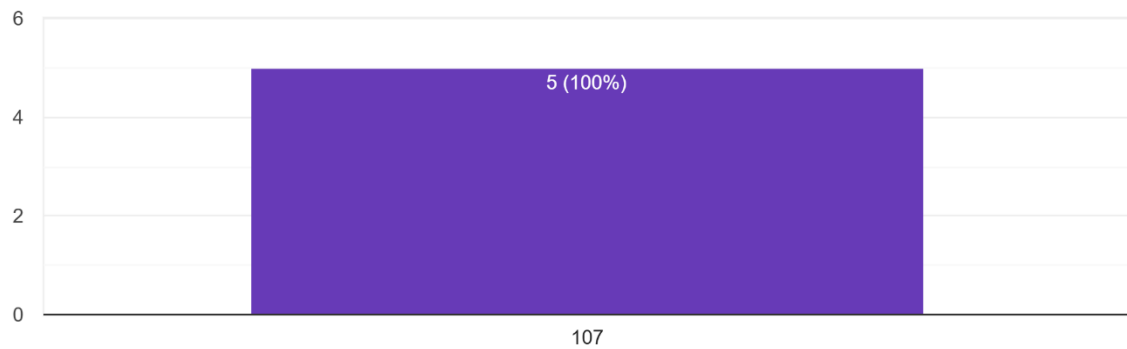
How many 'moderate' Lecturers are in the Cyber Security department for checkout distribution?	24
No. of Respondent	5
Percentage (%)	100%

Figure 6 shows the result for the number of 'moderate' lecturers in the Cyber Security department for checkout distribution. According to the data, all 5 respondents (100%) reported that there are 24 moderate lecturers in the Cyber Security department.

## b)How many lectures were missed in August?

How many lectures were missed in August?( Real-Time Attendance page)

5 responses



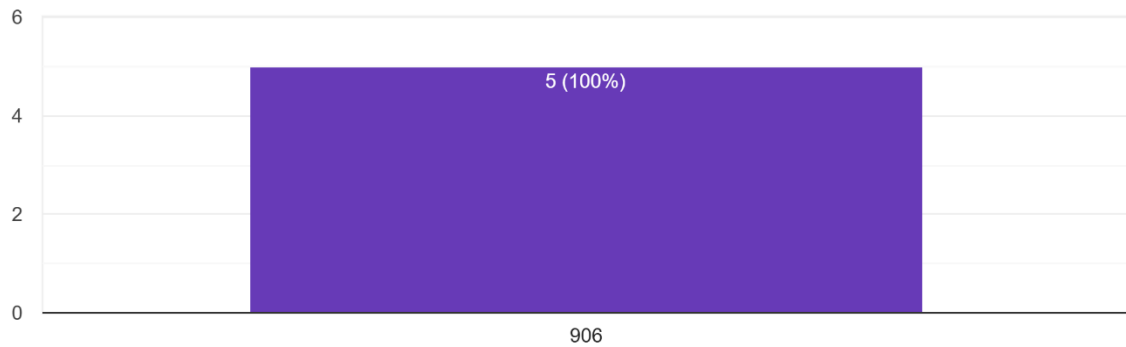
How many lectures were missed in August?	107
No. of Respondent	5
Percentage (%)	100%

shows the result for the number of lectures missed in August. According to the data, all 5 respondents (100%) reported that a total of 107 lectures were missed in August.

## c)How many leave days are taken for cohort A?

How many leave days are taken for cohort A? ( Leave Status Page)

5 responses



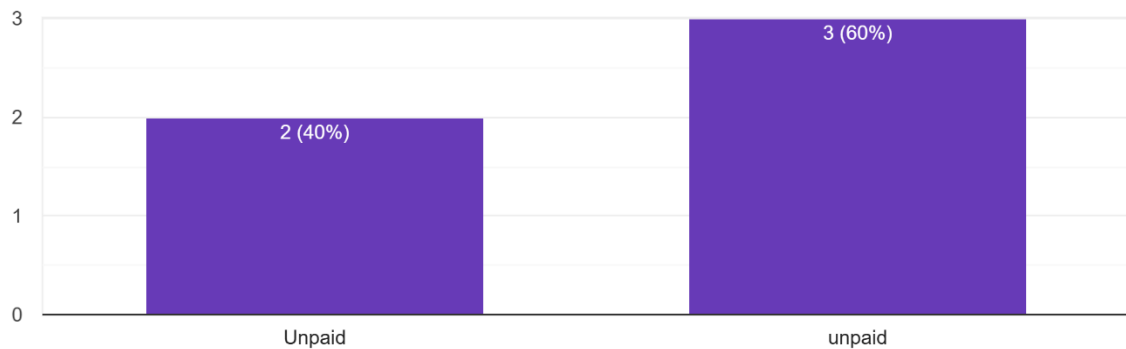
How many leave days are taken for cohort A?	906
No. of Respondent	5
Percentage (%)	100%

shows the result for the number of leave days taken for cohort A. According to the data, all **5** respondents (100%) reported that 906 leave days were taken by cohort A.

## d)What type of leave does Dr.Kang Eng use?

What type of leave does Dr.Kang Eng use?( Calendar Leave Page)

5 responses



What type of leave does Dr.Kang Eng use?	Unpaid	unpaid
<b>No. of Respondent</b>	2	3
<b>Percentage (%)</b>	40%	60

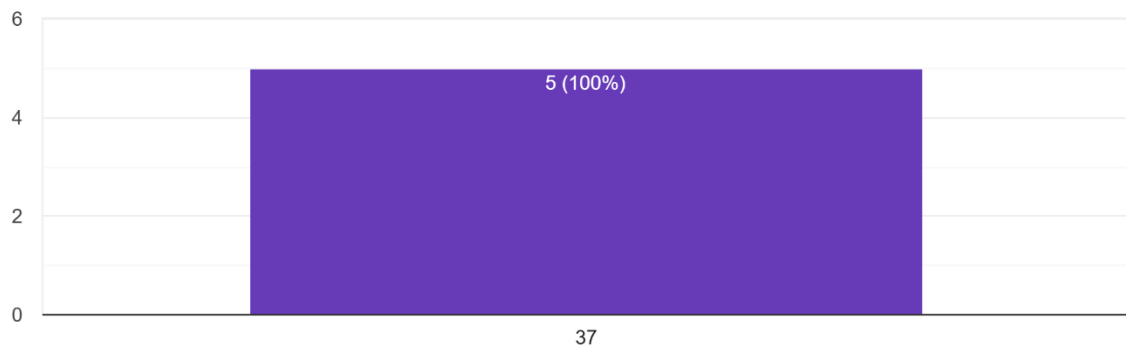
shows the result for the type of leave that Dr. Kang Eng uses. According to the data, 60% of respondents (3 out of 5) reported that unpaid leave is used by Dr. Kang Eng, while 40% of respondents (2 out of 5) indicated unpaid leave. the majority of respondents (60%) agreed that Dr. Kang Eng uses unpaid leave, while a smaller portion (40%) reported unpaid leave



## e)How many research submissions has the Cybersecurity department reviewed?

How many research submissions has the Cybersecurity department reviewed?( Summary Lecturers Insight)

5 responses



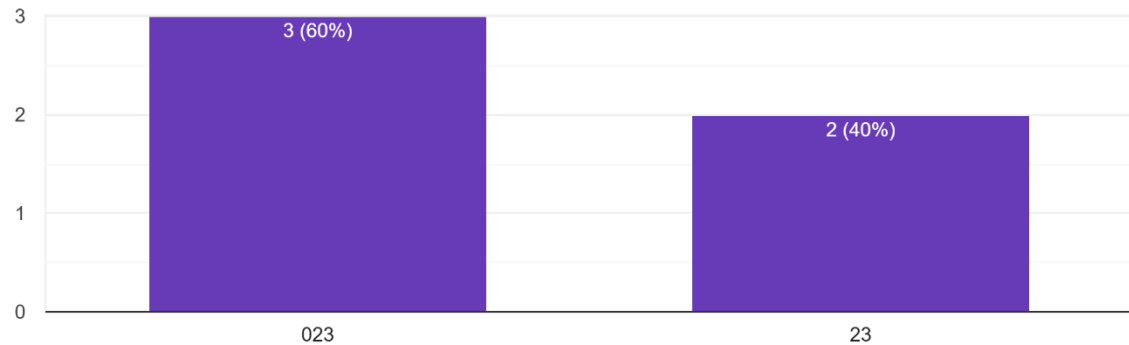
How many research submissions has the Cybersecurity department reviewed	37
No. of Respondent	5
Percentage (%)	100%

the result for the number of research submissions that the Cybersecurity department has reviewed. According to the data, all 5 respondents (100%) reported that 37 research submissions have been reviewed by the department. all participants (100%) agreed that 37 research submissions have been reviewed by the Cybersecurity department.

## f) Find the room Ts. Ali Yusny bin Daudin the map

Find the room Ts. Ali Yusny bin Daudin the map (Room Number Page)

5 responses

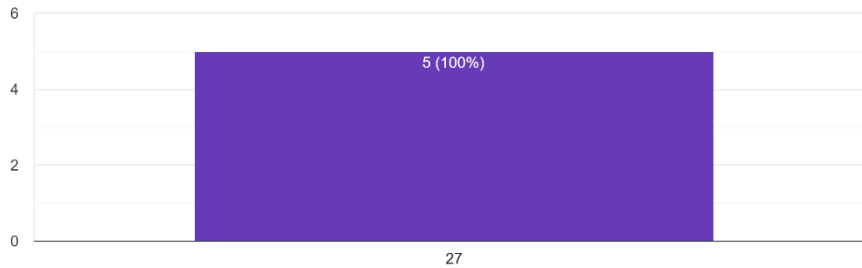


Find the room Ts. Ali Yusny bin Daudin the map	<b>023</b>	<b>23</b>
<b>No. of Respondent</b>	2	3
<b>Percentage (%)</b>	<b>40%</b>	<b>60</b>

hows the result for the question: "Find the room Ts. Ali Yusny bin Daudin on the map". According to the data, 60% of respondents (3 out of 5) reported that room 023 is the correct room, while 40% of respondents (2 out of 5) indicated room 23.

## g)How many senior lecturers in this dashboard?

How many senior lecturers in this dashboard? ( Biodata General)  
5 responses



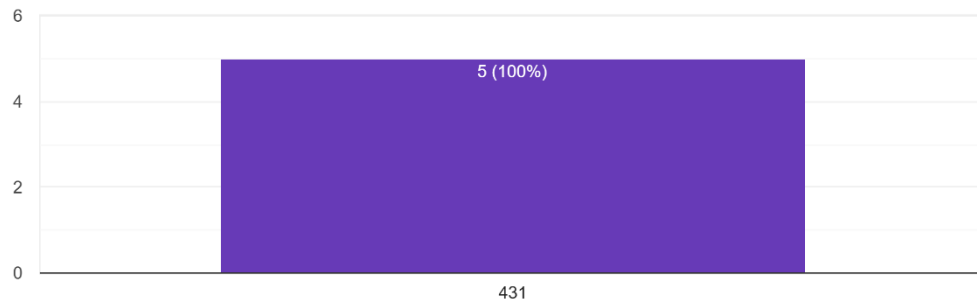
How many senior lecturers in this dashboard	27
No. of Respondent	5
Percentage (%)	100%

the result for the number of senior lecturers in the Employee Availability Dashboard. According to the data, 100% of respondents (5 out of 5) reported that 27 senior lecturers are present in the dashboard. All participants (100%) agreed that there are 27 senior lecturers in the Employee Availability Dashboard.

## h)How many supervisors have completed their status?

How many supervisors have completed their status?(Biodata General)

5 responses



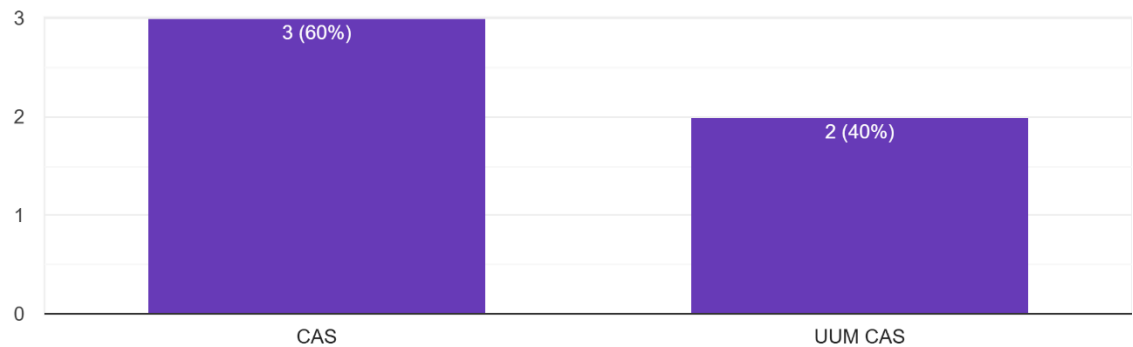
How many supervisors have completed their status?	431
No. of Respondent	5
Percentage (%)	100%

shows the result for the number of supervisors who have completed their status. According to the data, 100% of respondents (5 out of 5) reported that 431 supervisors have completed their status. all participants (100%) agreed that 431 supervisors have completed their status.

## I) Which department does Ts. Dr. Mohamed Ali bin Saip belongs to?

Which department does Ts. Dr. Mohamed Ali bin Saip belong to?( Biodata Detailed Page)

5 responses



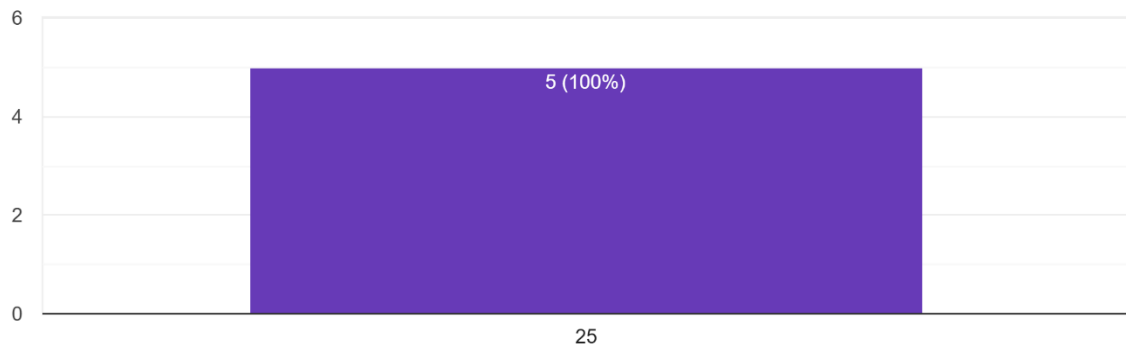
Which department does Ts. Dr. Mohamed Ali bin Saip belongs	CAS	UUM CAS
No. of Respondent	3	2
Percentage (%)	60%	40%

presents the results for the department that Ts. Dr. Mohamed Ali bin Saip is affiliated with. According to the data, 60% of the respondents (3 out of 5) indicated that CAS is the department he belongs to, while the remaining 40% of respondents (2 out of 5) identified UUM CAS as his department.

J)How many research projects has Prof. Madya Dr. Zahurin Bt. Mat Aji @ Alon conducted?

How many research projects has Prof. Madya Dr. Zahurin Bt. Mat Aji @ Alon conducted?( Biodata Detailed Page)

5 responses



How many research projects has Prof. Madya Dr. Zahurin Bt. Mat Aji @ Alon conducted	<b>25</b>
<b>No. of Respondent</b>	5
<b>Percentage (%)</b>	<b>100%</b>

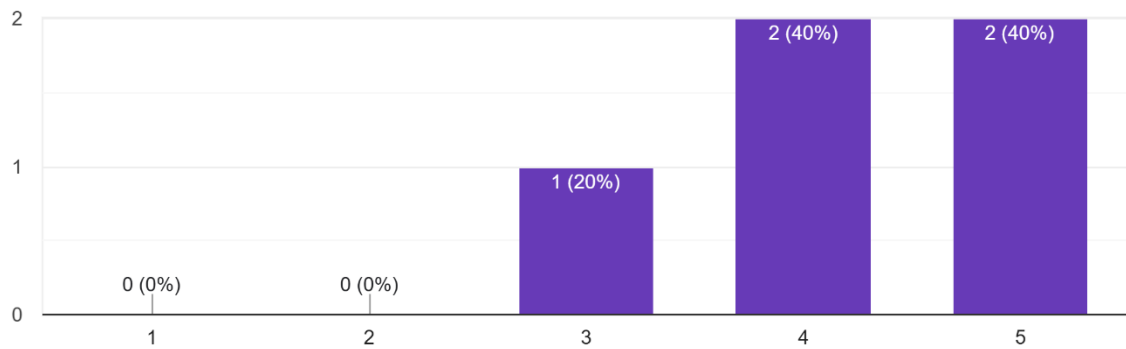
shows the result for the number of research projects conducted by Prof. Madya Dr. Zahurin Bt. Mat Aji @ Alon. According to the data, 100% of respondents (5 out of 5) reported that 25 research projects have been conducted by the professor

## SECTION C: FEEDBACK QUESTION

A) Overall, i am satisfied with this dashboard design

1. Overall, i am satisfied with this dashboard design

5 responses



Overall, i am satisfied with this dashboard design	3	4	5
No. of Respondent	1	2	2
Percentage (%)	20%	40%	40%

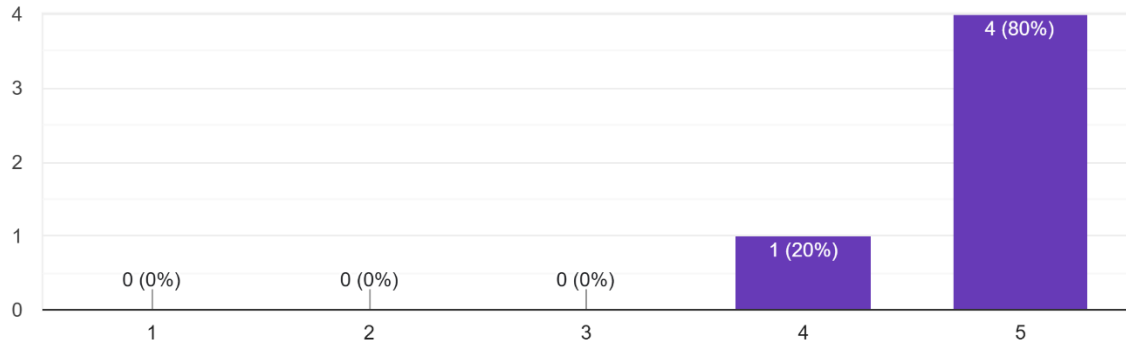
shows the result for the feedback question: **"Overall, I am satisfied with this dashboard design"**. According to the data, the responses were distributed as follows:

- **20% of respondents** (1 out of 5) selected **3**, indicating neutral satisfaction.
- **40% of respondents** (2 out of 5) selected **4**, indicating a high level of satisfaction.
- **40% of respondents** (2 out of 5) selected **5**, indicating very high satisfaction with the design.

b)Did you easy to get information?

2.Did you easy to get information?

5 responses



Did you easy to get information?	4	5
No. of Respondent	1	4
Percentage (%)	20%	80%

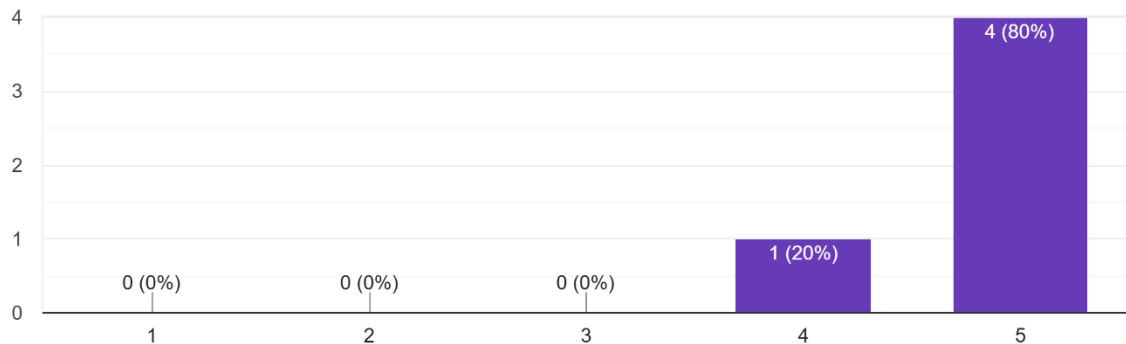
hows the result for the feedback question: "Did you find it easy to get information?" According to the data, 80% of respondents (4 out of 5) reported that they found it very easy to get information, selecting 5 on the scale. 20% of respondents (1 out of 5) rated it 4, indicating that they found it easy, but not completely effortless.



c)Visual encoding of data is consistent throughout the dashboard.

3. Visual encoding of data is consistent throughout the dashboard.

5 responses



Visual encoding of data is consistent throughout the dashboard.	4	5
No. of Respondent	1	4
Percentage (%)	20%	80%

shows the result for the feedback question: "Visual encoding of data is consistent throughout the dashboard." According to the data, 80% of respondents (4 out of 5) rated the consistency of visual encoding 5, indicating high satisfaction with how consistently data was visualized across the dashboard. 20% of respondents (1 out of 5) selected 4, suggesting that while the visual encoding was generally consistent, there may have been minor inconsistencies.

d) In your opinion, How useful is this dashboard for head of department understanding needs

the comment:

- useful because this head of department can see information about lecturers
- Very useful
- very useful but need to change a little bit about page
- Very Usefull
- Would be useful if sequence of the pages were arranged appropriately

The feedback regarding the usefulness of the Employee Availability Dashboard (EAD) for the head of department was overwhelmingly positive, with respondents highlighting various aspects that make the dashboard a valuable tool for department management. Many participants emphasized the dashboard's ability to provide critical information about lecturers, enabling department heads to make better-informed decisions. The majority of comments described the dashboard as "very useful", with respondents appreciating its functionality in tracking lecturer availability and resource allocation.

However, some participants suggested minor improvements to enhance the user experience. One respondent noted that the sequence of pages could be arranged more appropriately to improve navigation and accessibility, while another suggested that the dashboard is "very useful" but could benefit from small adjustments to the page design to optimize its effectiveness.

#### E) What do you think about this dashboard?

The comment:

- use a darker background color. but overall is good
- Interesting and beneficial
- basically the dashboard good but can repair about the design to make it more professional
- interesting
- The dashboard title does not represent the content and the story line (storytelling) is not smooth

The overall feedback for the Employee Availability Dashboard (EAD) was largely positive, with respondents highlighting its benefits and interest in using the system. Several participants found the dashboard to be interesting and beneficial, recognizing its potential in improving task allocation and resource management. However, there were also suggestions for improvement.

One comment recommended using a darker background color, which would enhance the visual appeal and potentially reduce strain during extended use. Another respondent appreciated the overall functionality but suggested design improvements to make the dashboard appear more professional. Furthermore, one participant noted that the dashboard title did not fully represent the content, and that the storytelling within the dashboard was not smooth, indicating a potential issue with how data and information are presented.

#### 4. IMPLICATION OF THE RESULTS

The evaluation of the Employee Availability Dashboard (EAD) has provided valuable insights into its functionality, usability, and user satisfaction. The feedback indicates that the dashboard is generally well-received, especially in terms of its ability to provide key information about lecturer availability, task allocation, and leave management. This suggests that the dashboard has successfully met its core objective of improving the efficiency of scheduling and resource management within the School of Computing (SOC).

However, the findings also reveal several areas for improvement. For example, the suggestions for design changes, such as using a darker background color and enhancing the professionalism of the interface, indicate that while the system is functional, there is room for further optimization in terms of visual appeal and user experience. Additionally, feedback regarding the dashboard title and storytelling highlights the need for clearer data presentation and more intuitive navigation to ensure that the information flows logically and is easily interpreted by users.

These findings suggest that the EAD can be enhanced by addressing these usability and design concerns. Implementing the recommended changes will likely improve user satisfaction and make the dashboard more effective in supporting department heads and administrators. Furthermore, refining these aspects will help the dashboard meet the diverse needs of users and ensure that it remains a valuable tool for managing lecturer availability and optimizing academic resources.

In conclusion, while the Employee Availability Dashboard has proven to be a useful tool, continuous improvement based on user feedback is essential to maintaining its relevance and effectiveness. The suggested improvements will enhance both its functionality and its user interface, leading to a more efficient, professional, and user-friendly system for the School of Computing (SOC).

**Declaration**

I hereby declare that this submission is **my own work** and to the best of my knowledge it contains no materials previously published or written by another.



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Student's Signature**01 / 06 / 2025**

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Date**Supervisor's Approval**

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Project Supervisor's Signature & Stamp

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Date**Lecturer's Approval**

<input type="checkbox"/>	Approve without modification
<input type="checkbox"/>	Approve with modification
<input type="checkbox"/>	Reject

Remark:

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Lecturer's Signature & Stamp

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Date