FINAL YEAR PROJECT (FYP)
GUIDE BOOK

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2017 v1
(ENGLISH VERSION)

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1. Introduction

The Final Year Project (FYP) provides an opportunity for students to utilize the knowledge acquired by developing individual projects. Students are exposed to projects and industry-related issues as well as research bases. At the end of the project, students will be able to:

- Identify industry-related problems in the ICT domain with literature review.
- Develop projects using appropriate methods.
- Maintaining the decision to elaborate on project interests.
- Confirm the project within the designated time frame.
- Organize information to produce official reports.

FYP is divided into FYP I and FYP II and implemented in two semesters as follows:

- FYP I (BITU 3926) with 3 credits usually implemented in Semester II Year 3.
- FYP II (BITU 3946) with 3 credits usually performed during the Special Year 3 semester.

In the next chapters, the Final Year Project is also referred to as the term 'Project'.

2. Prerequisite Final Year Project

2.1. Prerequisite Final Year Project I (FYP I)

Prerequisite FYP I:

i. Students have followed and passed the Workshop II (BITU 3923).

2.2. Prerequisite Final Year Project II (FYP II)

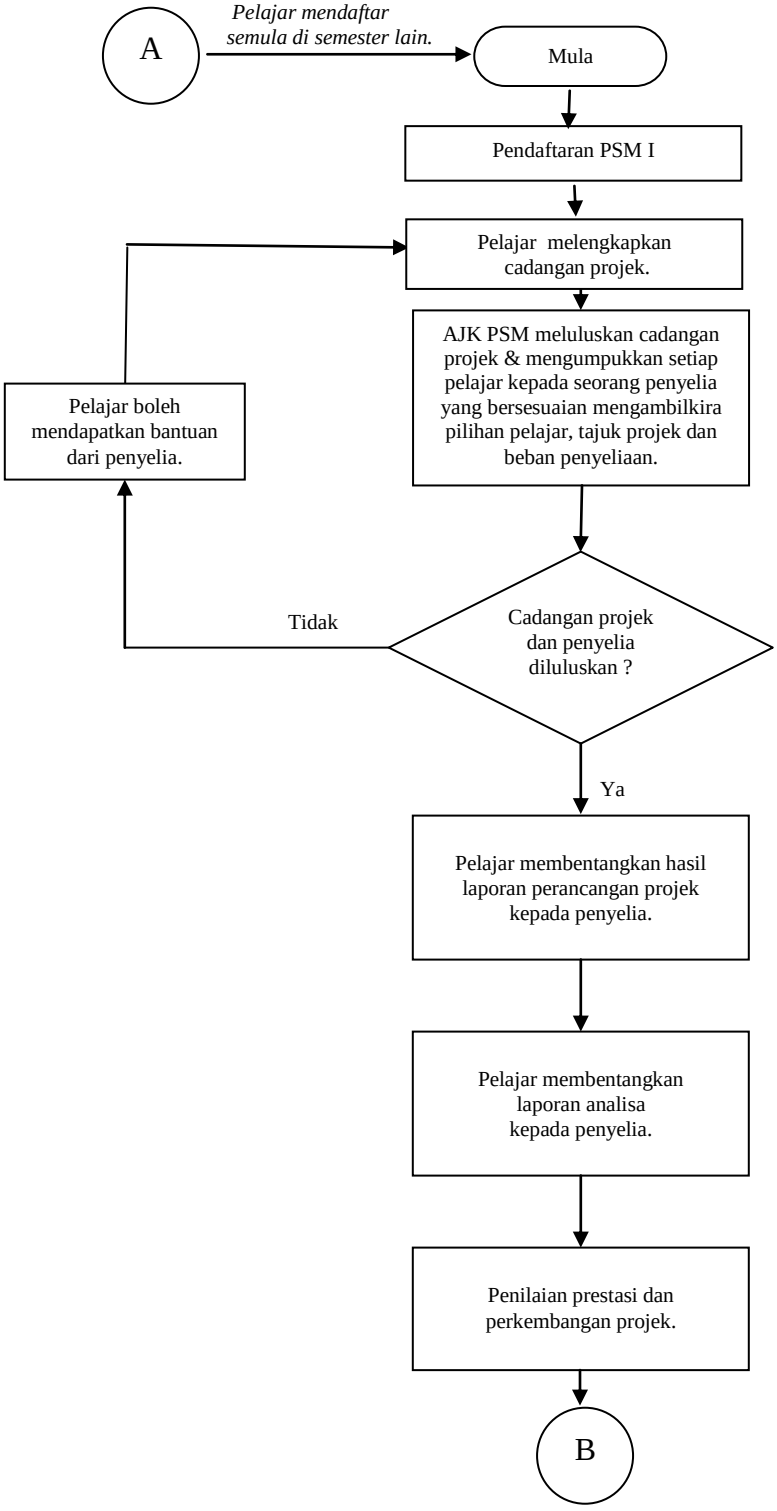
Prerequisite FYP II:

i. Student passed FYP I.

Note: FYP II is a prerequisite for Industrial Training.

3. Implementation Process of the Final Year Project I & II

Proses pelaksanaan Projek Sarjana Muda I dan II dijelaskan seperti di dalam Gambarajah 1 dan Gambarajah 2.



PSM I biasanya dilaksanakan pada Semester II pada setiap tahun. Pelaksanaan selama 14 Minggu

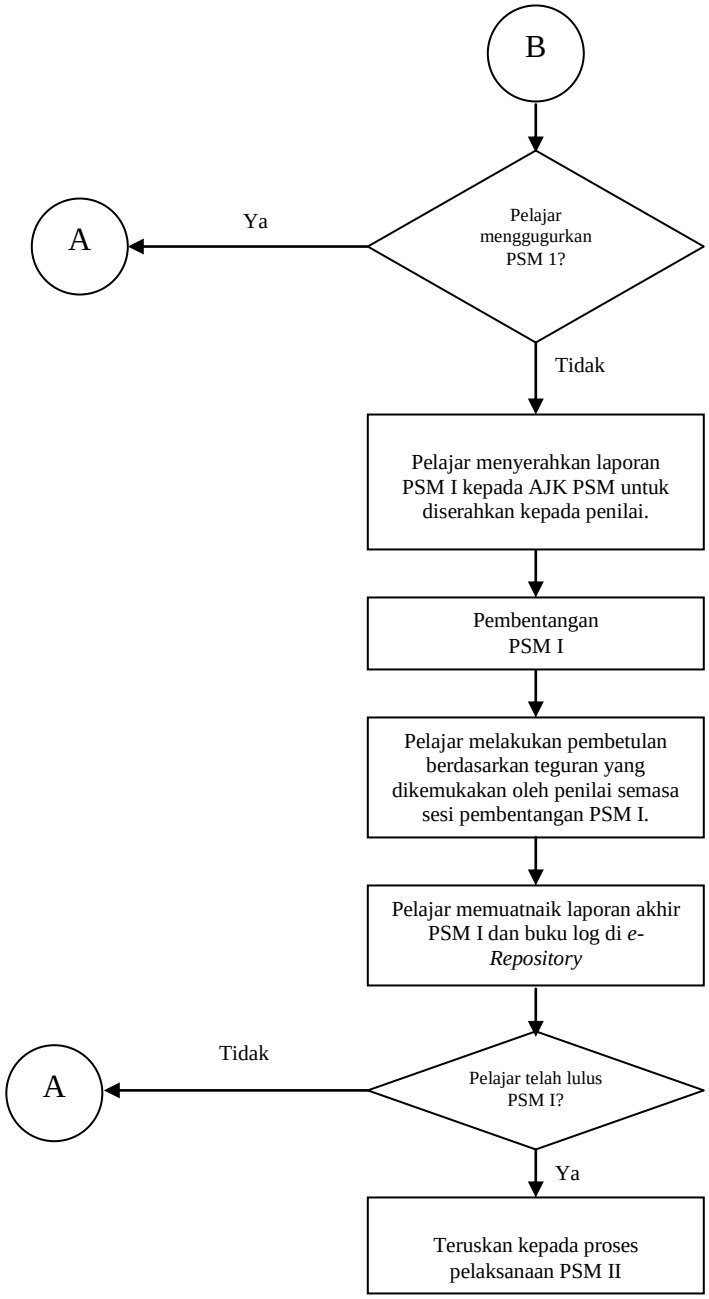
Cadangan projek dilakukan pada **awal minggu pertama**.*Cadangan projek mestilah menggunakan borang cadangan projek. Pelajar boleh mengemukakan sendiri tajuk projek atau menggunakan tajuk projek yang diberikan oleh penyelia.*

Senarai tajuk projek yang telah diluluskan/tidak berserta penyelia projek akan ditampal oleh AJK PSM selewat-lewatnya pada **penghujung minggu pertama.**.

Hasil laporan perancangan projek mestilah dibentangkan pada **minggu ketiga**..

Laporan analisa (Bab 2) mestilah dibentangkan pada **minggu kelima**.

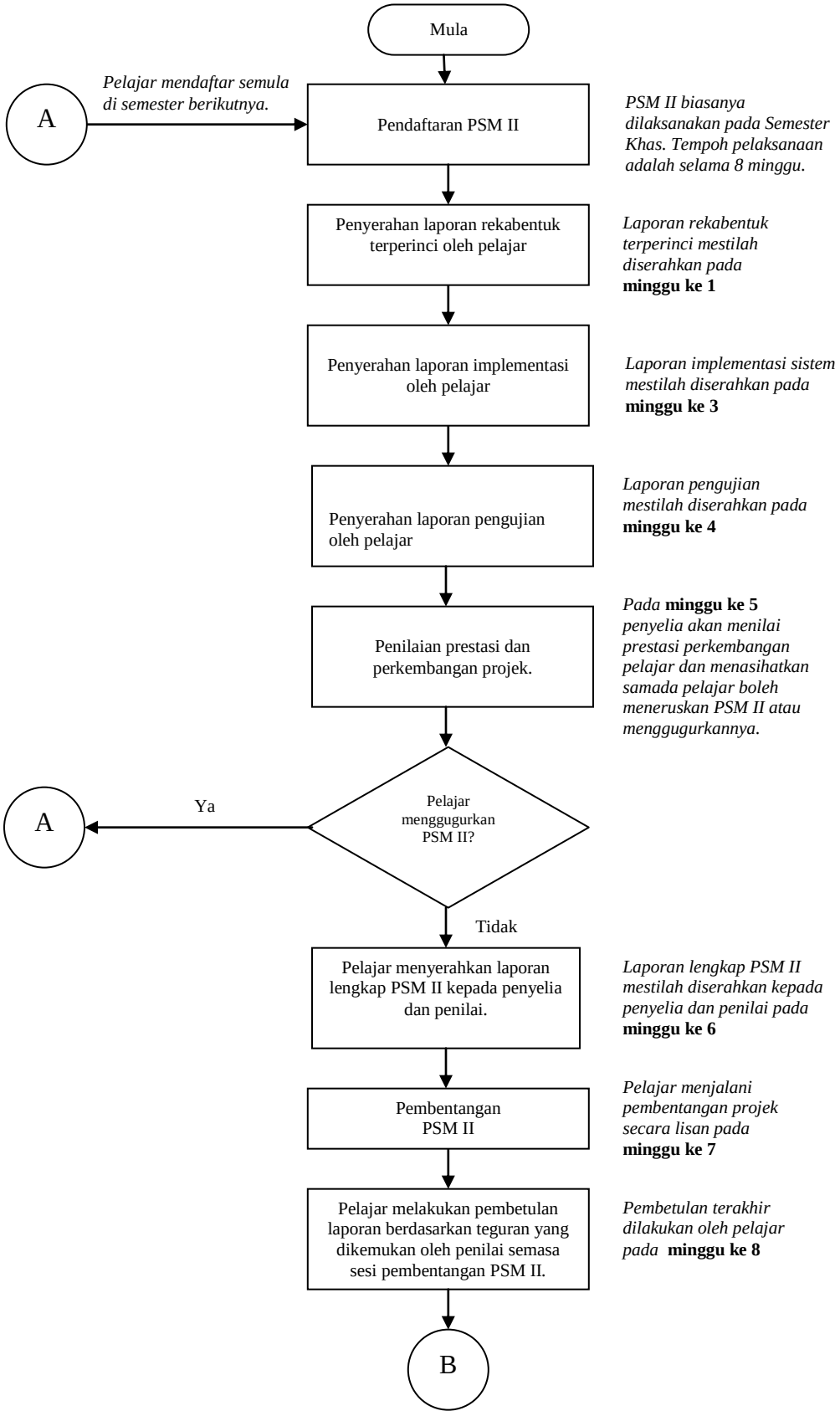
Pada **minggu keenam** *penyelia akan menilai prestasi perkembangan pelajar dan menasihatkan samada pelajar boleh meneruskan PSM I atau menggugurkannya.*

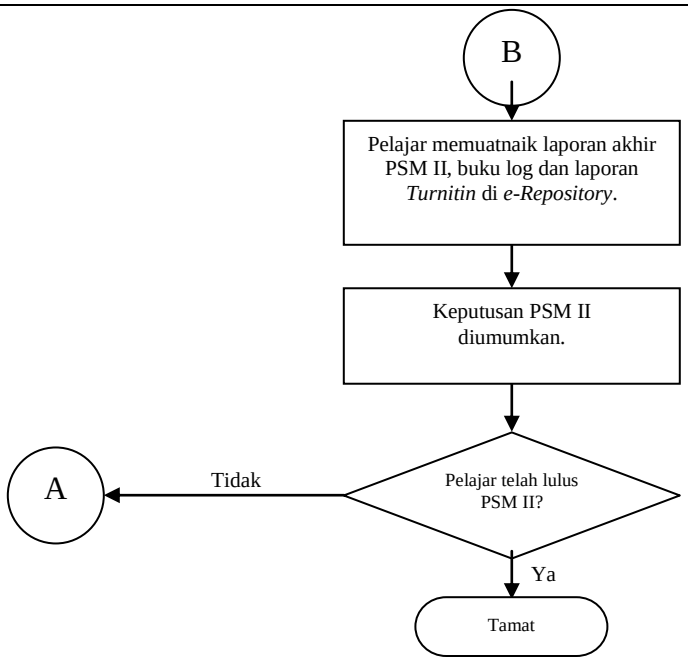


Penyerahan hendaklah dilakukan selewat-lewatnya **1 minggu** *sebelum tarikh pembentangan (****iaitu*** **minggu ke 11**).

Pelajar diwajibkan untuk membentangkan laporan projek I ini sehingga fasa rekabentuk. Pembentangan dilakukan pada **minggu ke 14**.

Gambarajah 1: Proses Pelaksanaan Projek Sarjana Muda I


Mula
A
Pelajar mendaftar semula di semester berikutnya.
Pendaftaran PSM II
PSM II biasanya dilaksanakan pada Semester Khas. Tempoh pelaksanaan adalah selama 8 minggu.
Penyerahan laporan rekabentuk terperinci oleh pelajar
Laporan rekabentuk terperinci mestilah diserahkan pada minggu ke 1
Penyerahan laporan implementasi oleh pelajar
Laporan implementasi sistem mestilah diserahkan pada minggu ke 3
Penyerahan laporan pengujian oleh pelajar
Laporan pengujian mestilah diserahkan pada minggu ke 4
Penilaian prestasi dan perkembangan projek.
Pada minggu ke 5 penyelia akan menilai prestasi perkembangan pelajar dan menasihatkan samada pelajar boleh meneruskan PSM II atau menggugurkannya.
Pelajar menggugurkan PSM II?
Ya
A
Tidak
Pelajar menyerahkan laporan lengkap PSM II kepada penyelia dan penilai.
Laporan lengkap PSM II mestilah diserahkan kepada penyelia dan penilai pada minggu ke 6
Pembentangan PSM II
Pelajar menjalani pembentangan projek secara lisan pada minggu ke 7
Pelajar melakukan pembetulan laporan berdasarkan teguran yang dikemukan oleh penilai semasa sesi pembentangan PSM II.
Pembetulan terakhir dilakukan oleh pelajar pada minggu ke 8
B



Salinan (softcopy) laporan dan dokumen/bahan/data yang berkaitan hendaklah diserahkan kepada penyelia, fakulti untuk simpanan peribadi pelajar.

***Minggu ke 8** adalah minggu terakhir penyerahan laporan projek*

Gambarajah 2: Proses Pelaksanaan Projek Sarjana Muda II

4. Project Scope

This chapter describes the types of industries, types of projects, project features and related project sizes and according to current industry needs and demands. The scope of this project is described to facilitate the students to choose the appropriate title and to meet the standards set by the faculty.

4.1. Types of Industries

The type of project required by the faculty is based on several disciplines and applications as follows:

Cluster based on discipline:

- Intelligent Information Systems
- Software Technology
- Database Technology
- Computer System Technology
- Computer and Network Security
- Networking and Distributed Computing
- Immersive Technology
- Games Technology
- Interactive Media
- Data Analytic

* However, the type of project is not limited to the above clusters, depending on the supervision of the supervisor and JK PSM / PD.

4.2. Types of Projects

The type of project is the title and the field that deals with the areas of specialization offered at the Faculty of Information and Communication Technology (FTMK) as well as in relation to the industries listed above.

Each student should ensure that the selected project type is relevant to their area of expertise.

The types of projects can be categorized into the following categories:

- **BITS**
  - Business Application Development
  - Tools Development
  - Development of Software Component Parts
  - Artificial Intelligence System
  - Business Intelligence and Data Mining

- **BITC**
  - Network Infrastructure - network design and security
  - System Software Infrastructure - operating system
  - IT and Network Security
  - Network Application and Internet Development

- **BITM**
  - 2D and 3D animations
  - Computer Games
  - Mobile App
  - Content e-Learning
  - VR / AR - Virtual Reality / Augmented Reality
  - System / web development

- **BITD**
  - Business Application Development
  - Data and Content Management Tools
  - Business Intelligence and Data Mining
  - Database Integration
  - Information Retrieval
  - Interactive and dynamic website

- **BITE**
  - Computer Game Development - contains one of the following elements:
    - New Games
    - Innovation
    - Technology Enhancement
    - Serious Game
    - Simulation

- **BITZ**
  - Cryptography
  - Malware / Spamming / Phishing / Virus / Trojan analysis
  - The development of tools for cyber security
  - Steganography

- **BITI**
  - Analytical data
  - The development of intelligent machines
  - Intelligent system development

*However, the type of project is not limited to the above mentioned subjects depending on the supervision of the supervisor and JK PSM / PD.

4.3. Project Properties

The selected project must have at least one of the following features:

- **Having added value -** the products produced can be leveled, integrated or used with other products.
- **Has commercial value** - product development with commercial value. Examples of project cooperation with industry.
- **Upgrading existing systems** - customizing existing apps / methods / tools / algorithms becomes more efficient and effective. Examples of shortening the execution time, improving performance or adding a time-saving system security feature with thumb recognition and application methods such as e-payment and e-claim.
- **New discovery** - creating new, creative and innovative ideas and applications.
- **Products based on actual case studies** - not just scientific studies but produce products that can be adopted by an organization (case study). Realize the product by using the latest technology or according to the latest methodology.
- **Data analysis** - producing projects that provide new knowledge in scientific studies. Examples of new script revenue or discovery of new techniques.

4.4. Project Size

Project size refers to the process stream, the number of modules, the complexity of the application, the target and the size of the user is clear and the time taken to develop the application. Since the project is a result of self-generated work, supervisors should ensure that the size of the selected project does not result in delays and it is successfully completed within a specified period. (please refer to activities/milestone FYP I and FYP II in Chapter 6).

Generally, the size of the project is based on the following:

- **Has a complete process flow -** there is a separate process that supports the application. Examples of e-claims; although basic modules such as led accounts and receipt accounts are not developed, but they provide mechanisms for receiving, processing, providing integration and finally transmitting such information to receipt and led account modules. The system prototype must include the whole process**.**

- **Clear consumer targets and sizes -** large user engagement requires intense planning particularly infrastructure provision planning such as hardware, software, security, storage space and policy. Examples of comprehensive network design; requires strong and up to date policy, planning and hardware support**.**

- **Have multiple approaches to algorithms and modeling -** some artificial intelligence concepts and simulations are applied in your application completion. Examples of anti-virus software; although its use is stand-alone, certain algorithms are used in generating the application.

- **Industrial / community problem solving** - for product-oriented projects, developed applications have features of business solutions and distributed applications. Industrial problem solving involves several systems linked and adopted by several organizations and departments. Examples of industries are facing problem solving and data integration. Thus, the possible solution is to develop applications to several parts and operating locations.

5. Project Outcomes

Throughout the course of the Final Year Project, students are required to produce results in stages. Project outcomes will be divided into several sections which will be evaluated by supervisors and evaluators. In this chapter the project work will be explained by the type of project - Project I (FYP I) and Project II (FYP II).

5.1. FYP I work

5.1.1. Project proposal

Project proposal paper **MUST** be provided by the student and must be submitted to their respective supervisor before starting FYP I. This is because:

- To get agreement on the suitability of the selected project.
- To ensure that the selected project meets the criteria set by the faculty.
- To ensure that students know the correct direction with a proposal sheet not to deviate from the objective.
- To identify students' ideas and appropriate writing methods with FYP I.

To get the project proposal form, please refer to the Project Proposal Form in **Appendix 1.**

Result: i) **Complete Project Proposal Form - student**.

5.1.2. Project Proposal and Verification

Proposed project **MUST** be approved by supervisor and confirmed by FTMK PSM / PD Committee. Before getting approval on project proposals, students should discuss with their respective supervisors with respect to the scope and the time required to complete the selected project. This is because:

- To avoid failing to complete it within the specified timeframe (8 weeks).
- To avoid changes in titles in mid-semester.
- To ensure the scope of the project is appropriate / achieve the FYP standard.

Results: i) **Proposed project proposals is agreed and certified - supervisors and PSM / PD committee.**

5.1.3. Progress Presentation 1

Progress Presentation 1 (PK1) is the content of Chapter 1, Chapter 2 and Chapter 3. The contents of the chapter must be completed and submitted to the respective supervisors on week **SIX (6).** Students will update the status and at the same time evaluating the progress of the project will be conducted by the supervisor.

Result: i) **Draft Report Chapter 1, Chapter 2 and Chapter 3 – student.**
ii) **Assessment Progress Report 1 – supervisor.**

5.1.4. Progress Presentation 2

Presentation of Progress 2 (PK2) is the content of Chapter 4. The contents of the chapter must be completed and handed over to their respective supervisors at week **NINE (9)**. Students will update the status and at the same time evaluating the progress of the project will be conducted by the supervisor.

Result: i) **Draft Report Chapter 4 – student.**
ii) **Review Presentation 2 – supervisor.**

5.1.5. Presentation of FYP I

At the end of FYP I, week **FOURTEEN (14),** students will present their FYP I and assessments will be conducted by supervisors and evaluator. This is:

- For students to provide a detailed explanation of the resulting reports.
- To evaluate students' understanding of the project.
- To ensure that the project produced is the work of the student itself.

In the presentation, the student is obliged to provide the following explanation:

- Introduction
- Literature Research
- Analysis
- Project Design and Prototype
- Summary
- Other relevant information

Result: i) **Presentation – student.**
ii) **Presentation Evaluation - supervisor and evaluator.**

5.1.6. Draft Report FYP I

Draft report FYP I must be completed and submitted to supervisor at the end of week **THIRTEENTH (13)** for review and evaluation. FYP Report Assessment I was examined from the perspective of students' ability in writing project reports as well as suggestions on creative and innovative ideas in solving problems.

Result: i) **Draft Final Report FYP I – student.**
ii) **FYP I Report Assessment - supervisor & evaluator.**

5.1.7. FYP I Report - Upload FYP I Report

After presentation and demonstration, students need to make corrections based on comments from supervisors and assessors. Students are given a week to make changes and corrections. Once all the comments and improvements desired by supervisors and assessors are taken into account, then the FYP I report should be uploaded to the *e-Repository* system.

5.1.8. FYP 1 Log Book

Log reports should be recorded at each meeting and signed by students and supervisors. The log should be uploaded to the *e-Repository* system at least five (5) meeting. To get the format of the log book reports, please refer to the Log Book Format in **Appendix 2.**

Result: **i) Log book signed by student and supervisor. - student, supervisor.**

5.2. FYP II work

5.2.1. Progress Presentation 1

Precision design purification works are carried out in this phase in Chapter 5 (Progress Presentation 1 (PK1)). Detailed design reports are compulsory for all students and should be presented to the supervisor in week **TWO (2).** This is because:

- To identify the designs produced does not deviate from project requirements.
- To correct the design to suit the prototype produced.
- To monitor and evaluate student progress on an ongoing basis.

Result: i) **Draft Report Chapter 5 – student.**
ii) **Assessment Progress Report 1 - supervisor** .

5.2.2. Progress Presentation 2

Presentation of Progress 2 (PK2) is the content of Chapter 6. The contents of the chapter must be completed and handed over to their respective supervisors at week **FOUR (4).** This phase begins the process of implementing application designs and the development of software programs that have been planned during the design phase.

Result: i) **Draft Report Chapter 6 – student.**
ii) **Review Presentation 2 – supervisor.**

5.2.3 Presentation of FYP II

Presentation of FYP II contains final reports and demonstrations of work. It is compulsory for all students at week **SEVEN (7).** Presentations and demonstrations will be conducted before supervisors and evaluator. This is:

- To ensure the final product can be produced as in the final report.
- To assess whether the scope and objectives of the project are achievable.
- To see students' performance whether they need revaluation or not.

In the presentation, the student is obliged to provide the following explanation:

- Project Introduction
- Literature and Methodology Study
- Analysis and Design
- Testing and Implementations
- Work Strengths and Weaknesses
- Summary and suggestion
- Other relevant information

Results: i) **Presentation and Demonstration of Project Results – students.**
ii) **Assessment of Presentation and Demonstration of Project Results - supervisor & evaluator.**

5.2.4 Draft Report FYP II

Before making presentations and demos, the student must submit a draft PSM II report to the supervisor and assessor to be evaluated on week **SIX (6).** This is because:

- To make sure students write reports based on the specified format.
- To assess students' ability in writing a project.
- To make sure the student idea does not deviate from the prescribed fields.
- To ensure students can produce reports as specified.

Result: i) **Two copies of Draft Report FYP II - student**.
ii) **Draft Evaluation of FYP II Report - supervisor & evaluator**.

5.2.5. FYP II Report - upload FYP Complete Full Report

After presentation and demonstration, students need to make corrections based on comments from supervisors and evaluator. Students are given a week to make changes and correction. Once all the comments and improvements desired by the supervisor and evaluator are taken into account, then the final report should be uploaded into the *e-Repository* system.

Results: i) **A complete FYP report that has been confirmed by the supervisor - student.**

5.2.6. FYP II Log Book

Log reports should be recorded at each meeting and signed by students and supervisors. The log should be uploaded to the e-Repository system at least **FIVE (5)** meetings. To get the format of the log book reports, please refer to the Log Book Format in **Appendix 2**.

Result: i) **Log book signed by student and supervisor - student, supervisor.**

6. Project Activities

The list of project activities helps supervisors and students plan for project supervision and development.

6.1. FYP I Activities

Activity	Responsibility	Due Date	Results
1. Briefing to students by the Committtee.	Committee	Before the semester started	List of supervisors with expertise is distributed to students.
2. Selection of supervisors based on areas of expertise. The number of students per supervisor is subject to the resolution of the committee.	Student, Supervisor	Before the semester started	The supervisor informed the student list that was agreed to the committee.
3. Submit the complete title proposal to the supervisor for approval.	Student	Week 1	Complete Project Proposal Form.
4. Improvement and submission of proposal papers signed by the supervisor to the committee.	Student	Week 2	Approved Project Proposal Form.
5. Upload a proposal paper signed by students, supervisors and AJK to the *e-Repository* system.	Student	Week 3	Approved Project Proposal Form.
6. Comment on the proposal paper uploaded by the student in the *e-Repository* system.	Supervisor	Week 4	Supervisor comments in the *e-Repository* system.

7. Prepare a chapter of introduction, literature review and methodology project (Chapter 1, Chapter 2 & Chapter 3) and assessment of Progress Presentation 1 (PK1) by the supervisor.	Student, Supervisor	Week 6	Introduction Report, Project Literature & Methodology Review and Progress Report 1 (PK1).
8. Warning letter 1 for a student who has never attended a supervisory session.	Supervisor	Week 6	
9. Design a pre-designed design and prepare a pre-design report (Chapter 4) as well as assessment of Progress Report 2 (PK1) by supervisor.	Student, Supervisor	Week 9	Preliminary Design Report & Preliminary Design Progress Report.
10. Warning letter 2 for a student who has never attended a supervisory session.	Supervisor	Week 10	
11. Submission of draft FYP I report to supervisor and evaluator.	Student, Supervisor	Week 13	FYP I report.
12. Final presentation with demonstration and evaluation of FYP I.	Student, Supervisor, evaluator	Week 14	Final Presentation Evaluation FYP I Report.
13. Upload the FYP I report, log book to the *e-Repository* system. The supervisor checks whether the student has uploaded FYP I report and log book.	Student, Supervisor	Week 15	FYP I report, FYP I log book
14. Supervisor submits a student's score after checking the accuracy of the document uploaded by the student	Supervisor	Week 16	Evaluation form

6.2. FYP II Activities

Activity	Responsibility	Due Date	Results
1. The preparation and submission of the Chapter 5 (Implementation) report and the Presentation of Progress Report 1.	Student, Supervisor	Week 2	Reporting Chapter 5 & Progress Evaluation Report 1.
2. Warning Letter 1 for students who have never attended supervisory sessions.	Supervisor	Week 2	
3. Preparing and submitting reports Chapter 6 (Exam) and Evaluation Progress Report 2	Student, Supervisor	Week 4	Reporting Chapter 6 & Progress Evaluation Report 2.
4. Warning Letter 2 for students who have never attended supervisory sessions.	Supervisor	Week 4	
5. Final presentation of PSM II along with demo, delivery of Final Report draft and evaluation.	Student, Supervisor, evaluator	Week 7	PSM II's work and evaluation.
6. Correction of draft reports based on feedback by supervisor and assessor during PSM II presentation session.	Student, Supervisor	Week 8	
7. Upload logbooks and PSM final reports that have been verified by students and supervisors into the *e-Repository* system. The supervisor is responsible for ensuring that students upload documents according to the rules of the Council.	Student, Supervisor	Week 9	PSM II report, PSM II log book and *Turnitin* report.
15. Supervisor submits student evaluation form after reviewing the uploaded document	Supervisor	Week 9	Evaluation form

7. Responsibilities of Students and Supervisors.

Student	Supervisor
Updating the project title, project objectives, and project scope to meet the requirements and specifications of the FYP.	Guiding students in updating project titles, project objectives, and project scope to be completed within a specified time.
Develop work plans for project implementation and form a Gantt chart.	Review the current progress of the project and compare it with the planning described in the Gantt chart.
Placing project titles, project objectives, project scope and job planning (Gantt chart).	Adhere to the calendar of undergraduate project supervision set by the faculty .
Ensuring that projects are genuine - if not genuine, students may be subject to disciplinary action.	Ensuring the student's project is original.
Bring a log book and record the work done every week when visiting a supervisor.	Supervise project control and evaluate research results to meet the scope and requirements of undergraduate projects.
Meet with a supervisor at least once in two weeks (or five times before submitting a draft report)	Record student attendance and discussion in log book during every meeting.
Make notes / comments on each meeting.	Confirm the result of discussion / comments after the meeting.
Send FYP draft reports to supervisor and evaluator before final presentation is implemented.	Submit a draft FYP report to supervisor and evaluator before the final presentation is implemented.
Ensure reports submitted for evaluation purposes have taken into account the supervisor's comments and in accordance with the format stated in the written manual.	Check the format of the report before the student uploads to the *e-Repository* system and submits the overall rating mark as scheduled in the project activity table. Ensure final reports are signed by students and supervisors.
Students should ensure that log books, FYP final reports and *Turnitin* reports have been uploaded to the *e-Repository* system **one week after** the final presentation. Failure to upload all the materials, the AJK reserves the right to postpone entry of student scores into the system and students will be prevented from undergoing Industrial Training.	Ensuring and verifying students have uploaded log books, FYP final reports and *Turnitin* reports into the *e-Repository* system **one week after** the final presentation.

8. Report Format

FYP reports (FYP I and FYP II) generated MUST be written in **English.** The report format is divided into two categories: -

i) **Report Content Format** - refers to the content or parts that need to be prepared and presented in writing with the corresponding diagram of the project being developed. For example; Chapter 1 - Introduction, Chapter 2 - Literature Review, Chapter 3 - Methodology and so on.

ii) **Report Writing Format** - refers to fonts and sizes, margins, spacing, numbering system, paper type, reference format, bibliographic format and so on.

Please refer to the **Final Report Writing Handbook / Buku Panduan Penulisan Laporan Akhir** for details.

9. Project Evaluation

This chapter explains the evaluation process, passing or failure requirements and weighting of the scores.

9.1. FYP Evaluation Mechanism

Generally, FYP (I and II) is valued based on the work and according to the following mechanisms:

- A major evaluation of student project reports is made by supervisors by type of project. (refer to the project assessment section for weighted distributions).
- The second assessment is evaluated during the presentation by the appointed evaluator.
- Different emphasis is given for each type of project.
- At the end of the project implementation, the supervisor is responsible for submitting the results of the overall evaluation of the students to PSM / PD committee within a specified period.

9.1.1. FYP I Evaluation Aspect

Among the things that are focused are:

i) Statement of problems that can be attributed to project objectives.
ii) Scope of project: network / client-server / stand-alone; size appropriate to be done by a student; has a clear and logical scope.
iii) Methodology: the suitability of the system to be developed.
iv) System prefix design: design effectiveness; the use of the latest tool in producing the design.
v) Hardware & software selection for implementation: clear selection justification

9.1.2. FYP II Evaluation Aspect

Among the things that are focused are:

i) System generated: fulfills the objectives and scope determined in FYP I.
ii) Design and implement a system based on the specified methodology.
iii) System testing and evaluation successfully tested on identified users.
iv) Can state the importance and contribution of the developed project.

9.2. Checklist of Requirements for Passing FYP

This section describes the criteria for students to obtain pass or repeat or fail in their final project.

9.2.1. Passing Case

i) The supervisor is satisfied with the student's achievement.
ii) Project outcomes can at least meet most of the objectives and scope set.
iii) Programming can work according to most of the scope requirements.

9.2.2. Re-presentation Case

i) Supervisors and assessors are dissatisfied with student achievement.
ii) Major faults on the system can not be run.
iii) Not meet the features of the system developed.
iv) Incomplete system design (such as not fulfilling the scope, objective is not achieved, elusive, does not reflect actual situation).
v) At the discretion of the supervisor, assessor and PSM / PD committee.

9.2.3. Failure Case

i) Imitation or plagiarism from other sources.
ii) Not undergoing any FYP I and FYP II presentation sessions.
iii) Project outcomes do not meet the requirements specifications (such as not meeting the scope, objectives are not achieved, elusive, do not reflect the actual situation).
iv) Overall rating is less than 40%.

9.3 Project Evaluation

Project evaluation is based on the components of student work as in FYP I and FYP II.

9.3.1. FYP I Evaluation

Students will be evaluated based on the following:

Project Progress Report	40%
• Proposal Report	(5%)
• Presentation Progress 1	(15%)
• Presentation Progress 2	(20%)

Final Presentation (Supervisor)	25%
• Demo	(14%)
• FYP I Final Report	(8%)
• Others (language, personality)	(3%)
Final Presentation and FYP I Report (evaluator)	35%
• Demo	(20.4%)
• FYP I Final Report	(11.7%)
• Presentation style	(2.9%)

9.3.2. FYP II Evaluation

Students will be evaluated based on the following:

Project Progress Report	40%
• Presentation Progress 1	(5%)
• Presentation Progress 2	(15%)
Final Presentation (Supervisor)	45%
• Demo	(16.7%)
• FYP II Final Report	(26.7%)
• Others (language, personality)	(1.6%)
Final Presentation (evaluator)	35%
• Demo	(12.5%)
• FYP II Final Report	(20%)
• Presentation style	(2.5%)

10. General Policy of FYP Supervision

This chapter explains PSM's supervisory general policy.

10.1. Supervision Load

In general, the supervisory total for each supervisor depends on the number of students in a program and is divided into the total number of supervisors of the department. For example, the BITC program has 80 students and the number of active's supervisors in the department is 20, so a supervisor only qualifies for the maximum supervision of 4 students.

10.2. Joint Supervision

Joint Supervision can be implemented if necessary between a Department / PTj / Faculty and other Departments / PTj / Faculty. A written request shall be forwarded to the Dean of FTMK and a copy to the Chairman of the PSM / PD. Approval of application is subject to the discretion of the Dean of FTMK. Applications must be submitted at least **TWO (2)** months before FYP I semester begins.

10.3. Supervisor and Student Responsibilities

Supervisors and students are required to adhere to what has been notified in section 7. The supervisor shall ensure that the student uploads the materials required in *e-Repository* such as log book, final report and Turnitin report. The final report of FYP II should be signed by students and supervisors before uploading to *e-Repository*. Failure to upload all the materials, the COMMITTEE reserves the right to postpone the student mark's entry into the system and students will be prevented from undergoing Industrial Training (BITU 3926 & BITU 3946).

10.4. Policy of Loan Forms

Students are required to fill out a loan form that can be obtained from the FTMK administration office and it must be confirmed by the supervisor and subsequently approved by the FTMK Asset Officer.

10.5. Policy on uploading Final Report to *e-Repository*

Students are required to upload FYP I's final report along with log book or final report of FYP II as well as log book and *Turnitin* report a week after the final presentation. Failure to upload will result in the student being prevented from undergoing Industrial Training (BITU 3926 & BITU 3946).

10.6. FYP Purchase Claim Policy

Students are allowed to make FYP materials purchases according to the amount specified by the Faculty. Claims must be made within **TWO (2)** weeks from the date of purchase. Please refer to **Appendix 3 – Appendix 3.4** for the guidelines process for claiming purchase of PSM and PD equipment or services.

APPENDIX

Appendix 1 – Project Proposal Form

UTeM/FTMK/PSM/2017/v1

Kod Projek :	BITU 3973

UNIVERSITI TEKNIKAL MALAYSIA MELAKA **FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY** **PROJEK SARJANA MUDA 1 (BITU3973): PROPOSAL FORM**	
A	**TITLE OF PROPOSED PROJECT:**
B	**DETAILS OF STUDENT**
	Name of Student: **Matric No:** **Program Pengajian:** BITC / BITD / BITE / BITI / BITM / BITS/ BITZ **Handphone No.:** **E-mail Address:** **Semester/Session:**
C	**PROJECT INFORMATION**
C(i)	**Executive Summary of Project Proposal (maximum 300 words)** **(Please include the background of project, problem statements, objectives, and expected outcomes/ proposed solution from the project.**
C(ii)	**Detailed proposal of project:** **(a) Project background including Introduction / Problem Statements**. **(b) Objective (s) of the Project** **Example**: ***This project embarks on the following objectives:*** • *To investigate ...* • *To assess …* • *To make recommendations based on ...* **(c) Scope of the Project**

	(d) Expected Outcome/ Proposed Solution
D	**REFERENCES**
	State your references (Minimum 10 references)

E (i)	**Declaration by student /** *Akuan pelajar*
	Date : *Tarikh :* **Student's Signature :** *Tandatangan Pelajar :* _____

E (ii)	**Recommended by the Supervisor** *Perakuan oleh Penyelia*	**Recommendation by the Commitee** *Perakuan oleh Jawatankuasa*
	Please circle: Recommended/ Not Recommended **Comments:** **Supervisor's Name:** **Signature and Stamp:** **Date:** *Tarikh:*	**Please circle: Accepted/ Not Accepted** **Comments:** **Commitee's Name:** **Signature and Stamp:** **Date:** *Tarikh:*

Appendix 2 – Log Book Format

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

BITU 3973 / BITU 3983
FINAL YEAR PROJECT

LOG BOOK SUPERVISION

Student Name			
Matric No		**Course**	
Sem/Session		**Tel. No**	
e-mail			
Supervisor Name			
Project Title			

No:	**Date:**	**Time:**
Notes and Discussions:		
Supervisor's signature:	Student's signature:	

Appendix 3 – Guidelines Process For Claiming Purchase Of PSM and PD Equipment Or Services

1. Claims can be issued by a supervisor or student to the Faculty financial unit using claim form (**Appendix 3.1**).
2. Please refer to **Appendix 3.2** for the claim process flow chart.
3. Claims for a student can be done only once. The latest can be claimed by FYP II presentation week. Date of claim must be no later than 2 weeks of date of purchase receipt. Letter of Justification for delay (example: **Appendix 3.3**) is need to be done by the supervisor to the Faculty financial unit if applicable.
4. The amount of claimable purchase is limited to RM200 / student for FYP and RM100 / student for PD.
5. Allowable goods / services claim as listed in **Appendix 3.4**.

Appendix 3.1 – Claim Form

UNIVERSITI TEKNIKAL MALAYSIA MELAKA
FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI

BORANG TUNTUTAN PERBELANJAAN PROJEK SARJANA MUDA / DIPLOMA

Nota: 1. Borang ini mesti ditaip kemas. Borang tulisan tangan atau yang tidak lengkap akan dipulangkan.
*2. Semua bukti **asal** pembelian mesti dilampirkan.*

Name Pelajar: **E-mel pelajar:**

No. K/P: **No. Matrik Pelajar** :

Nama Penyelia: **Nama Bank:**

No. Akaun Penyelia / Pelajar:

Bil	Diskripsi	Kuantiti	Nilai (RM)

Baki Peruntukan: RM **Jumlah Tuntutan: RM**

Disediakan Oleh:

……
NAMA PELAJAR:

Tarikh:

Disokong Oleh:

……
Tandatangan dan Cop Penyelia

Tarikh:

Disemak Oleh:

……

Tandatangan dan Cop AJK PSM/PD

Tarikh:

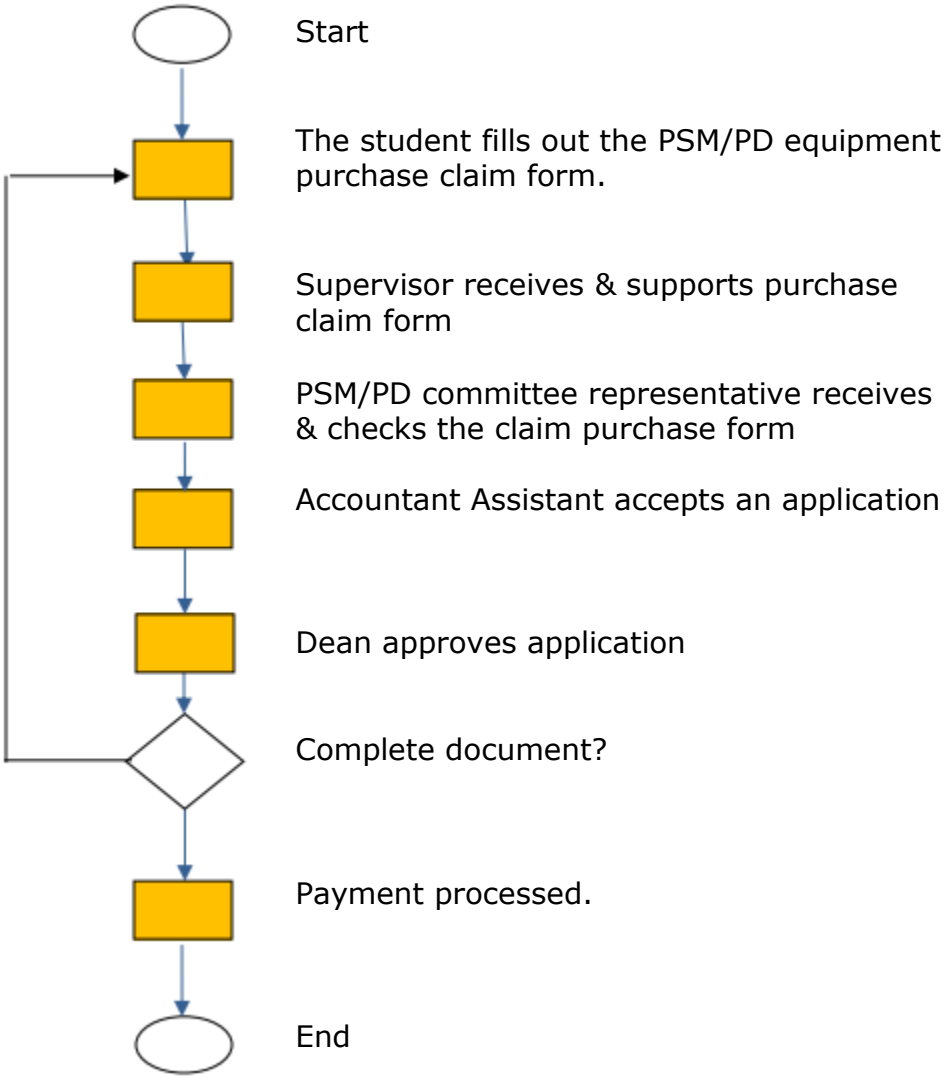
Diluluskan Oleh:

……

Tandatangan dan Cop Dekan FTMK

Tarikh:

Appendix 3.2 – Claim Process Flow Chart for Buying PSM/PD Equipment or Services



Appendix 3.3 – Examples of Justification Letter of Delayed Claim

Bahagian Pengurusan Pembayaran
Pejabat Bendahari
Universiti Teknikal Malaysia Melaka

Tuan/Puan,

JUSTIFIKASI KELEWATAN TUNTUTAN BAYARAN BALIK PEMBELIAN PERALATAN
PROJEK SARJANA MUDA (PSM) / PROJEK DIPLOMA (PD)

Dengan segala hormatnya saya merujuk perkara di atas.

2. Untuk makluman pihak tuan/puan, saya telah membuat permohonan tuntutan bayaran balik pembelian peralatan bagi kegunaan Projek Sarjana Muda (PSM) / Projek Diploma (PD) yang dilaksanakan sepanjang Semester 2 dan Semester Khas Sesi 2014/2015 pada akhir semester.

3. Tuntutan ini dibuat lewat kerana terpaksa menumpukan perhatian kepada pencapaian projek. Saya ingin memohon maaf di atas kelewatan pemohonan ini dan berharap pihak tuan/puan untuk mempertimbangkan permohonan tuntutan bayaran balik pembelian peralatan ini.

4. Segala kerjasama dan kelulusan pihak tuan/puan dalam hal ini amat dihargai.

Sekian, terima kasih.

Yang benar,

.....
DR. NORHARYATI BINTI HARUM
Pensyarah Kanan dan Penyelia Projek (PSM)
Fakulti Teknologi Maklumat dan Komunikasi
Universiti Teknikal Malaysia Melaka

Appendix 3.4 – List of Equipment / Services For Procurement Claims of PSM/PD Goods

Table 1: List of Equipment

No	Equipment
1	Microprocessor/microcontroller - Raspberry Pi , Arduino
2	Sensor and electronic devices
3	LTE/WiFi/Bluetooth Dongle, WiFi Dongle
4	RFID/NFC tag/card/bracelet/reader etc
5	Web Camera
6	Power adapter/ battery
7	Joystick/game pad/input devices
8	NCR card
9	Paper/Photostat for survey

Table 2: List of Services

No	Services	Notes
1	Provider Service (Topup, sim card)	Not exceeding RM30
2	Game assets/characters - audio, 2D, 3D assets/characters	
3	Other services that can not be reached at the university	according to the case