

## PROJECT REQUIREMENT REVIEW FORM

Note: This form is provided as a guideline for students to propose suitable project requirements before development begins. Students can tick the selected requirements and write their ideas or changes in the remarks column. This checklist must be **presented together with the Project Proposal** to the project supervisor. All selected requirements must be discussed and approved by the project supervisor. Students must also ensure that the **supervisor completes the remarks, decision, and confirmation sections in this form**. The project must be suitable for 3 - 4 students, completed within 7 weeks, and divided into 3 sprints.

### A. PROJECT INFORMATION

Item	Details
<b>Project Title</b>	
<b>Project Type</b>	<input type="checkbox"/> Web-Based Application <input type="checkbox"/> Mobile Application <input type="checkbox"/> IoT Project <input type="checkbox"/> Other : _____
<b>Group Number</b>	
<b>Student Name(s)</b>	1.
	2.
	3.
	4.
<b>Project Supervisor</b>	

### B. PROJECT REQUIREMENT CHECKLIST

#### 1. Website Requirement Checklist

No.	Requirement Guideline	Example / Where Applicable	Tick	Student Remarks / Changes
1	At least 3 user roles.	Admin, Staff, User, Customer, Student	<input type="checkbox"/>	
2	Different functions and access rights for each user role.	Admin manages records, Staff updates status, User submits booking / order / request	<input type="checkbox"/>	
3	Database for storing system data. The database can be SQL or NoSQL.	MySQL, PostgreSQL, SQLite, MongoDB, Firebase, Supabase	<input type="checkbox"/>	
4	Create, Read, Update and Delete (CRUD) functions.	Add, view, edit and delete users, products, bookings, orders or records	<input type="checkbox"/>	
5	Login and logout functions.	Login / logout for Admin, Staff and registered users	<input type="checkbox"/>	
6	Registration / sign-up function.	Where applicable for public user / customer / student account creation	<input type="checkbox"/>	
7	Email verification after registration.	Where applicable for user account activation	<input type="checkbox"/>	
8	Forgot / reset password function.	Where applicable through email or reset link	<input type="checkbox"/>	

9	Encrypted / hashed user passwords in the database.	Password hashing before storing in database	<input type="checkbox"/>	
10	User input validation.	Required field, email format, password length, number / date validation	<input type="checkbox"/>	
11	System messages.	Login error, save success, delete confirmation, invalid input	<input type="checkbox"/>	
12	At least 1 framework or library.	Laravel, CodeIgniter, Bootstrap, Tailwind CSS, React, Vue	<input type="checkbox"/>	
13	Suitable template or theme.	Admin dashboard template, homepage template, Bootstrap template	<input type="checkbox"/>	
14	Admin / Staff dashboard.	Total users, total orders, total bookings, pending requests, reports	<input type="checkbox"/>	
15	Homepage or main page for normal users.	Landing page, service page, product page, booking page	<input type="checkbox"/>	
16	Search, filter or sorting functions.	Where applicable for product list, booking list, order list, student list or report list	<input type="checkbox"/>	
17	Records / history / report display.	Transaction history, booking history, report, receipt, invoice or system log	<input type="checkbox"/>	
18	File upload function.	Where applicable for image, document, profile picture, receipt or proof of payment	<input type="checkbox"/>	
19	Payment or payment record function.	Where applicable using FPX, PayPal, Stripe, ToyyibPay or manual payment proof	<input type="checkbox"/>	
20	Notification or alert function.	Where applicable through email notification, status update, dashboard alert or system notification	<input type="checkbox"/>	
21	Status management.	Pending, approved, rejected, completed, cancelled, paid, unpaid	<input type="checkbox"/>	
22	Navigation menu.	Menu based on user role, sidebar, header menu or dashboard menu	<input type="checkbox"/>	
23	Responsive interface.	Suitable display on desktop, tablet and mobile screen sizes	<input type="checkbox"/>	
24	Hosting or deployment.	Hosting server, cPanel, Vercel, Netlify, GitHub Pages or local server demo	<input type="checkbox"/>	

## 2. Mobile Application Requirement Checklist

No.	Requirement Guideline	Example / Where Applicable	Tick	Student Remarks / Changes
1	At least 3 user roles.	Admin, Staff, User, Customer, Student	<input type="checkbox"/>	
2	Different functions and access rights for each user role.	Admin manages data, Staff updates status, User submits booking / order / request	<input type="checkbox"/>	
3	Online database for storing application data. The database can be SQL or NoSQL.	Firebase, Supabase, MySQL online database, MongoDB	<input type="checkbox"/>	
4	Create, Read, Update and Delete (CRUD) functions.	Add, view, edit and delete profile, booking, order, complaint or record	<input type="checkbox"/>	
5	Login and logout functions.	Login / logout for registered users	<input type="checkbox"/>	

6	Registration / sign-up function.	Where applicable for public user / customer / student account creation	<input type="checkbox"/>	
7	Email verification after registration.	Where applicable for user account activation	<input type="checkbox"/>	
8	Forgot / reset password function.	Where applicable through email or reset link	<input type="checkbox"/>	
9	Encrypted / hashed user passwords in the database.	Password hashing or Firebase Authentication	<input type="checkbox"/>	
10	User input validation.	Required field, email format, password length, phone number validation	<input type="checkbox"/>	
11	System messages.	Login error, save success, invalid input, confirmation message	<input type="checkbox"/>	
12	Search, filter or sorting functions.	Where applicable for product list, booking list, order list, student list or report list	<input type="checkbox"/>	
13	Records / history / report display.	Order history, booking history, payment record, transaction report, receipt or invoice	<input type="checkbox"/>	
14	File or image upload function.	Where applicable for profile picture, document, receipt or proof of payment	<input type="checkbox"/>	
15	Payment or payment record function.	Where applicable using FPX, PayPal, Stripe, ToyyibPay or proof of payment upload	<input type="checkbox"/>	
16	Notification or alert function.	Where applicable using push notification, email notification, status alert or system message	<input type="checkbox"/>	
17	Status management.	Pending, approved, rejected, completed, cancelled, paid, unpaid	<input type="checkbox"/>	
18	Android / iOS demonstration.	APK demo, emulator demo or real device demo	<input type="checkbox"/>	
19	Clear navigation / menu structure.	Bottom navigation, side menu, tab menu or dashboard menu	<input type="checkbox"/>	

### 3. Internet of Things Requirement Checklist

No.	Requirement Guideline	Example / Where Applicable	Tick	Student Remarks / Changes
1	Device with mobile application or device with website.	ESP32 with mobile app, Arduino with website dashboard, Raspberry Pi with web system	<input type="checkbox"/>	
2	At least 2 user roles.	Admin and User	<input type="checkbox"/>	
3	Different functions and access rights for each user role.	Admin monitors all devices, User views own device data	<input type="checkbox"/>	
4	At least 1 device or microcontroller.	ESP32, Arduino, Raspberry Pi, NodeMCU	<input type="checkbox"/>	
5	At least 3 features or sensors on the device.	Temperature sensor, humidity sensor, motion sensor, light sensor, LED control, buzzer alert	<input type="checkbox"/>	
6	Online shared database for storing IoT data. The database can be SQL or NoSQL.	Firebase, Supabase, MySQL online database, MongoDB	<input type="checkbox"/>	

7	Sensor or component data reading.	Temperature, distance, motion, light, water level, gas value, LED / buzzer status	<input type="checkbox"/>	
8	Data transmission from device to online database.	Sensor data stored in database with date and time	<input type="checkbox"/>	
9	Current device data display in mobile application or website.	Current temperature, device status, latest reading	<input type="checkbox"/>	
10	Historical data display with timestamp.	Sensor reading history by date and time	<input type="checkbox"/>	
11	Create, Read and Update (CRU) functions in mobile application or website.	Create device record, view sensor data, update device status or threshold value	<input type="checkbox"/>	
12	Login and logout functions in mobile application or website.	Login / logout for Admin and User	<input type="checkbox"/>	
13	Registration / sign-up function.	Where applicable for user account creation	<input type="checkbox"/>	
14	Forgot / reset password function.	Where applicable through email or reset link	<input type="checkbox"/>	
15	Encrypted / hashed user passwords in the database.	Password hashing or Firebase Authentication	<input type="checkbox"/>	
16	User input validation in mobile application or website.	Required field, device ID format, email format, number validation	<input type="checkbox"/>	
17	System messages in mobile application or website.	Connection error, data saved, invalid input, device offline alert	<input type="checkbox"/>	
18	Alert or notification function.	Where applicable when sensor value reaches certain limit	<input type="checkbox"/>	
19	Real-time data demonstration.	Device reads data and displays / sends the data through the mobile application or website during demo	<input type="checkbox"/>	

**Additional Features Proposed by Students**

No.	Additional Feature / Requirement	Purpose / Description	Student Remarks
1			
2			
3			
4			
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6			
7			
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9			

**C. SUPERVISOR REVIEW**

<b>Decision</b>	<input type="checkbox"/> Approved <input type="checkbox"/> Need Correction <input type="checkbox"/> Rejected and Need to Propose New Project
<b>Remarks</b>	

**D. SUPERVISOR CONFIRMATION**

Item	Details
Supervisor Name	
Signature	
Date	