



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of
Professional and
Continuing
Education
(SPACE)

SUBMISSION OF GROUP PROJECT 1 (GROUP 8)

Course Title : SECD2613-15 - SYSTEM ANALYSIS
AND DESIGN

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STUDENTS NAME	STUDENTS ID
AMIR HAMZAH BIN ABDUL HALIM	A23MJ8042
ARIA FARDHIN NIDHI	A23MJ3004
MALIKA KASMALIEVA	A23MJ3016

Online Restaurant Reservation System

**Design a system for users to make online reservations at restaurants, view availability, and receive confirmation emails.*

Executive Summary:

The Online Restaurant Reservation System seeks to develop an innovative web-based program that enriches the dining experience for both customers and restaurant staff. Through a user-friendly interface, visitors will have the ability to effortlessly make online reservations and view real-time table availability. Following this, customers will promptly receive reservation confirmation emails. This system aims to not only streamline the reservation process, thus facilitating staff operations but also enhance the restaurant's general overview and customer satisfaction.

Background:

Our restaurant has a rich history, starting as a small family business many years ago. Through years of dedication and growth, our establishment has evolved into a popular dining destination, particularly for those seeking a relaxing meal after a busy workday. However, the increasing popularity has resulted in long queues forming outside our doors. To address this challenge, our team has developed a platform that enables our customers to conveniently reserve a table at their preferred time, from anywhere and at any time. This system is poised to enhance not only the customer service experience but also the overall efficiency of our restaurant.

Objectives:

1. Design and implement a website featuring a restaurant reservation system that provides patrons with convenient access to advance table reservations.
2. Develop a streamlined display of available tables within the restaurant for the selected time slots.
3. Automate the sending of email notifications to clients with reservation confirmations, utilizing the user information filled out on the website.
4. Enhance the restaurant's overall image, customer satisfaction, and operational efficiency through the implementation of this managed platform.

Methodology:

- Requires Gathering and Analysis: Conduct interviews with restaurant owners and managers. We can also survey potential customers/users. Moreover, examine current reservation platforms and gather the requirements.
- System Design and Prototyping: Design a table or sequence. Create wireframes and prototypes to illustrate the user experience and features of the system. Select appropriate technologies too.
- Development: Construct the platform using HTML, CSS, or other latest web technologies to create a cooperative user interface. For effective data storage connect with a reliable data management system.
- Testing and feedback: First run unit tests of specific components and then conduct usability testing with users to check any issues. This helps to gather feedback for future advancements.
- Deployment: Deploy the Online Restaurant Reservation System Portal to a few users or restaurant managers and owners to monitor the performance of the system.
- Assistance and Maintenance: Provide support to tackle any issues and introduce new features based on feedback. Keep an eye on user activity for optimization.

Resources:

- Project Manager
- Software Developers
- Graphic Designer
- Technical Assistance Personnel
- Networking Tools and Servers
- Development tools and Programming Languages(CSS,HTML,etc)
- Project Management Software
- Documentation
- Dedicated Task Time
 - Requirements Gathering and all planning: 2 weeks
 - System Design: 3 weeks
 - Development: About 12 weeks
 - Testing and feedback: 4 weeks
 - Deployment and Launch: 1-2 weeks
 - Maintenance and Support: Always-on

Budget:

a) Personnel costs:

- i. Project Manager: RM5000 per month
- ii. Software Developer (2 developers): RM5000 per month per developer
- iii. Graphic Designer: RM3000
- iv. Technical Assistance personnel: RM4000

b) Software and licenses:

- i. Development tools and programming languages (CSS, HTML, etc): RM3000
- ii. Project Management Software: RM300 per year

c) Infrastructure and hosting:

- i. Server hosting: RM600 per year
- ii. Domain registration: RM100 per year
- iii. SSL certificate: RM 600 per year

d) Miscellaneous expenses:

- i. Documentation: RM500
- ii. Consultations: RM1000

Total budget:

Sum of all the above costs:

Total budget = Personnel costs + Software and licenses + Infrastructure and hosting + Miscellaneous expenses

Total budget =

Personnel costs: $(RM5000 + RM5000 + RM5000 + RM3000 + RM4000) * 12 \text{ months}$

Software and licenses: $RM3000 + (RM300 * 12)$

Infrastructure and hosting: $RM600 + RM100 + RM600$

Miscellaneous expenses: $RM500 + RM1000$

Total budget = RM269800

Measurement and Reporting:

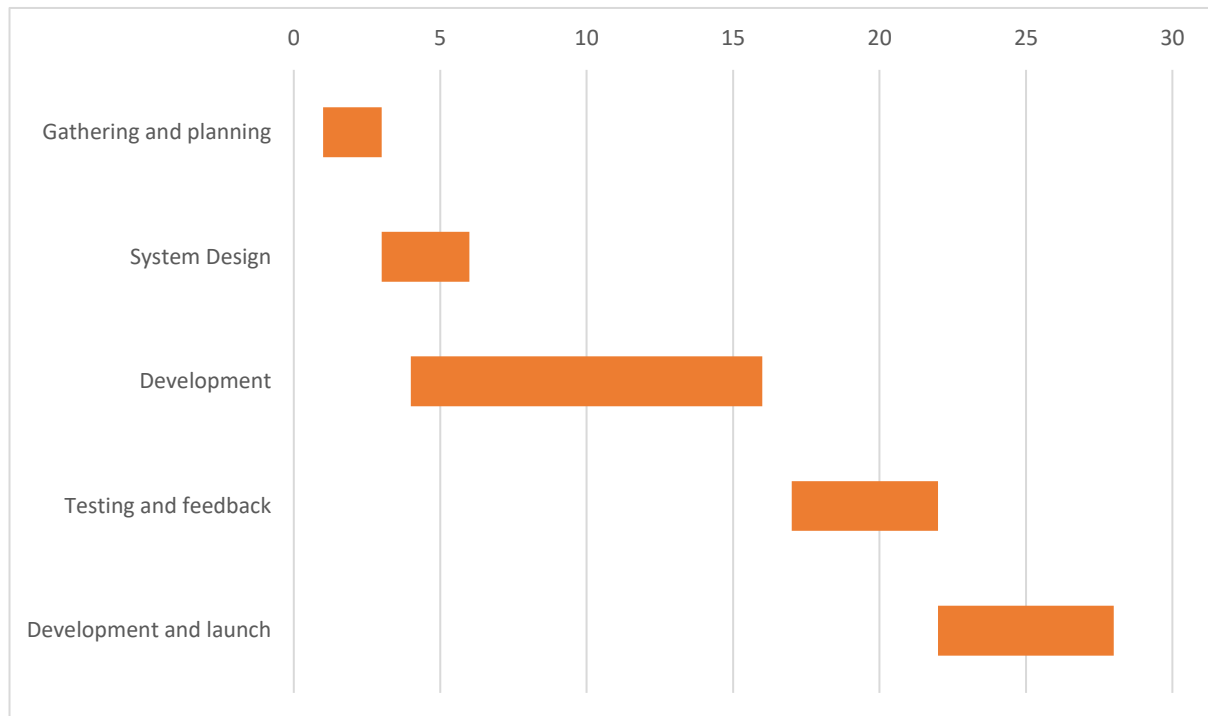


Figure of Project Tasks with given duration (weeks)

We utilize a Gantt chart to track progress of each task in chronological order as well as deadlines. Progress reports are made bi-weekly (total of 12 reports over the course of 24 weeks.) that entails: completed tasks, upcoming tasks, issues encountered and adjustments to be made. Regular meetings will be held within the team to ensure every participant is up to date as well as to resolve any incurring issues.

Risks:

- Employment of suitable personnel.
- Technical difficulties during development phases.
- Management of various collected data during gathering phase.
- Data security.
- Competition from existing restaurant-based online reservation portals.

Mitigation of risks are made via thorough inspection of personnel, clear communication within the team regarding project progress and careful handling of important data.