FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI

BITP3123 DISTRIBUTED APPLICATION DEVELOPMENT

PROJECT REPORT

TITLE: HOMIESTUDENT

NAME	MATRIC NO.
MUHAMMAD KHAIRIN SYAHMI BIN MOHD YUSRI	B032420093
SERI NUR SHANNEY FARISYA BINTI MOHD FAIRUS	B032420147

INTRODUCTION

The Homiestudent is a web-based platform designed to connect students with landlords for property rentals, featuring two main interfaces which is a Student Portal that allows students to search, view, and book properties with filters of price, bedrooms, type, and an interactive map powered by Google Maps API and a Landlord Portal that enables landlords to manage property listings and handle booking requests either approval or rejection with messaging. The system follows secure backend practices, including CSRF protection, session authentication, and input sanitization, while utilizing a MySQL database with tables for users, properties and bookings to ensure data integrity. Designed for scalability, it offers a streamlined workflow of students submitting requests, landlords reviewing them and students receiving updates while maintaining a responsive, user-friendly interface built with Bootstrap.

SYSTEM COMPONENTS

2.1 Frontend Applications

I. Student Portal (*homepage.php*)
- Property search with filters (price, bedrooms, type)
- Interactive map view
- Booking request submission

- Booking status tracking

II. Landlord Portal (*landlord.php*)
- Property listing management
- Booking request approval/rejection
- Tenant communication

2.2 Backend API

I. RESTful endpoints (*api*/*bookings.php*, *api/properties.php*) handle:
- Property listings
- Booking requests
- User authentication

II. Secure data validation and CSRF protection (*includes*/*security.php*)

2.3 Database (MySQL)

I. users (students/landlords)
II. properties (rental details)
III. bookings (request status, dates)

KEY FEATURES AND TECHNICAL IMPLEMENTATION

3.1 Google Maps Integration

- Embedded maps display property locations
- Interactive markers show property details
- Uses Google Maps Embed API for static maps and JavaScript API for dynamic views

3.2 Security Measures

- CSRF tokens prevent unauthorized form submissions
- Session-based authentication restricts access to authorized users
- Input sanitization protects against SQL injection

3.3 Business Logic Flow

- Student searches properties : Submits booking request
- Landlord reviews request : Approves or rejects with optional message
- Students receive status updates

CONCLUSION

Homiestudent successfully meets all project requirements by integrating separate student and landlord portals through a shared API, implementing secure database workflows, and adding real-world value through Google Maps integration and efficient booking management. For future improvements, enhancing password security with hashing and strengthening input validation would further prepare the system for production deployment.