



UNIVERSITI
TEKNOLOGI
PETRONAS

TFB1033 - OBJECT ORIENTED PROGRAMMING

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GROUP: TutoBud

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1.0 Description of project

In the evolving landscape of higher education, the demand for personalized and effective academic support has never been more critical. TutoBud aims to revolutionize the tutoring experience for university students by seamlessly linking them with certified tutors. This innovative platform is designed to improve academic coaching through enhanced communication and convenient appointment scheduling, ensuring that students receive the high-quality assistance they need to succeed in their studies.

One of the key features of TutoBud is its ability to provide students with a multiple-choice selection of tutors and subjects. By offering a diverse range of certified tutors, TutoBud ensures that students can find the right match for their specific academic needs. Whether a student is struggling with complex calculus problems or needs guidance on writing a research paper, TutoBud has a tutor available to help. The platform's user-friendly interface allows students to easily browse through tutor profiles, read reviews, and select the tutor who best meets their learning style and academic requirements. This personalized approach not only enhances the quality of tutoring but also fosters a more engaging and supportive learning environment.

One of the standout features of TutoBud is its flexible scheduling system. Students can book appointments with tutors at times that fit their busy university schedules. The platform's calendar integration ensures that both students and tutors are aware of upcoming sessions, reducing the chances of missed appointments and scheduling conflicts. The market for online education and tutoring services is rapidly expanding, with an increasing number of students seeking flexible and accessible learning solutions. TutoBud is well-positioned to capitalize on this trend by offering a platform that addresses the unique needs of university students.

TutoBud's platform is designed to be scalable, allowing for the seamless addition of new tutors and subjects as demand grows. This scalability ensures that TutoBud can cater to a wide range of students, from those in large universities to

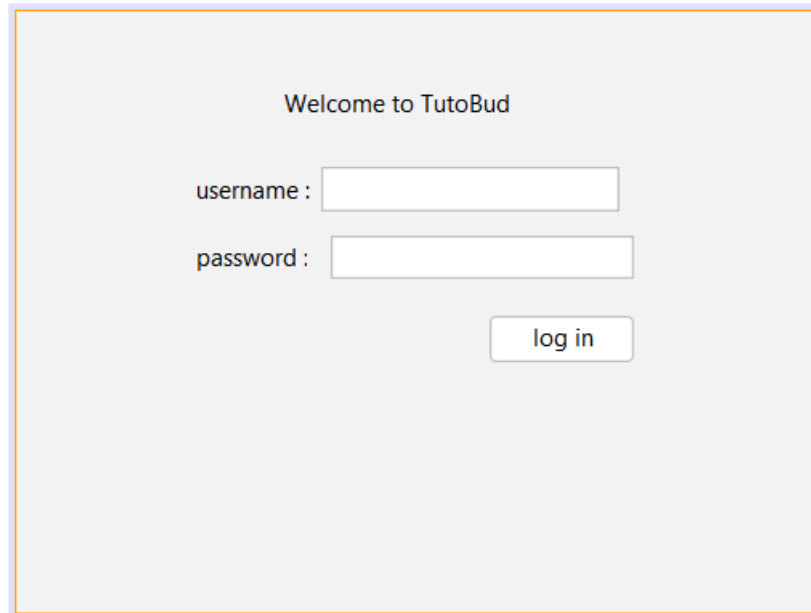
smaller, specialized institutions. The increasing competition in academic environments drives students to seek additional support outside the classroom. TutoBud provides a reliable solution for students aiming to improve their grades and academic performance, making it an attractive investment for educational institutions and individual learners alike. By providing personalized tutoring, effective communication tools, and comprehensive study resources, TutoBud ensures better learning outcomes for students. Demonstrating these improved outcomes can help in attracting partnerships with educational institutions looking to enhance their support services.

The potential of TutoBud extends beyond individual tutoring sessions. By fostering a culture of continuous learning and providing students with the tools they need to succeed, TutoBud contributes to the overall enhancement of the educational experience. As universities continue to adapt to the changing needs of students, TutoBud stands out as a pioneering solution that bridges the gap between students and academic success. The market potential for TutoBud is vast, and its scalable, data-driven approach ensures that it can meet the growing demand for quality education support. This makes TutoBud not just a tool for learning, but a valuable investment for clients seeking to make a significant impact in the education sector.

2.0 Graphical User Interface

1. Login

This interface is used for users to log into the TutoBud system.

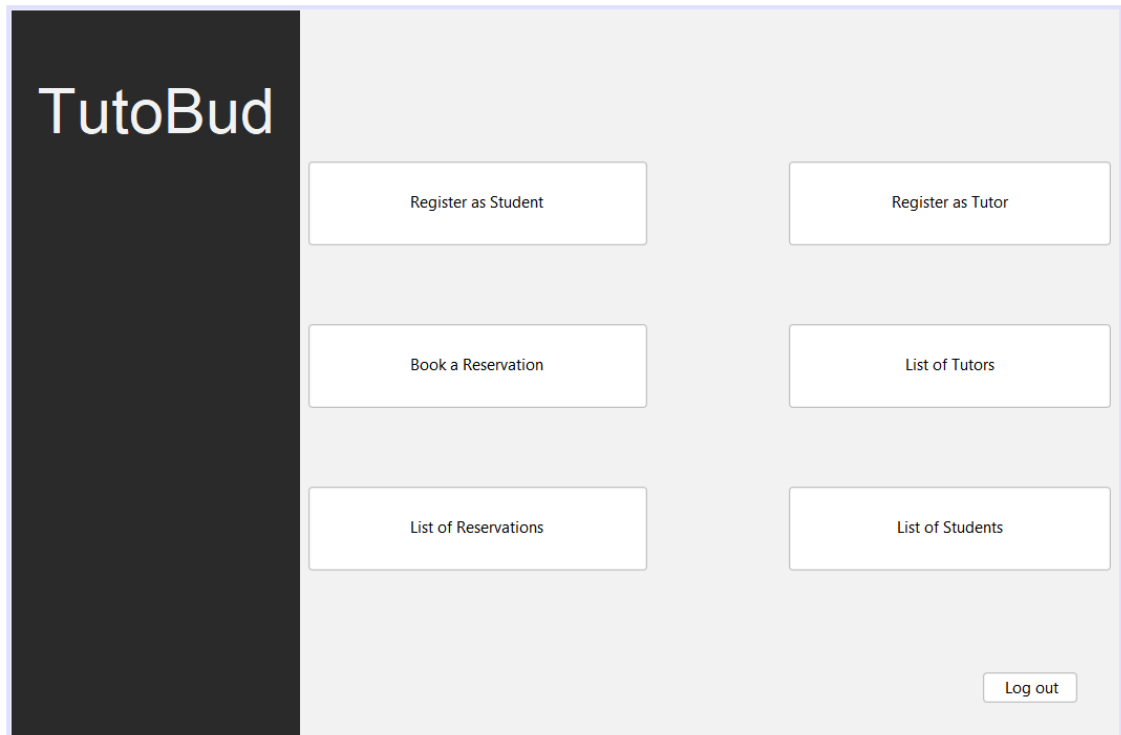


The image shows a login interface for the TutoBud system. It features a light gray background with a white border. At the top, the text "Welcome to TutoBud" is centered. Below this, there are two input fields: "username :" followed by a white rectangular box, and "password :" followed by a white rectangular box. To the right of the password field, there is a button labeled "log in" with a light gray background and a white border.

- **Username:** A text input field where users enter their username.
- **Password:** A password input field where users enter their password. The text is typically obscured to ensure privacy.
- **Login Button:** This button submits the entered username and password for authentication. Once clicked, it would typically check the credentials against a database and allow access if the credentials are correct.

2. Menu

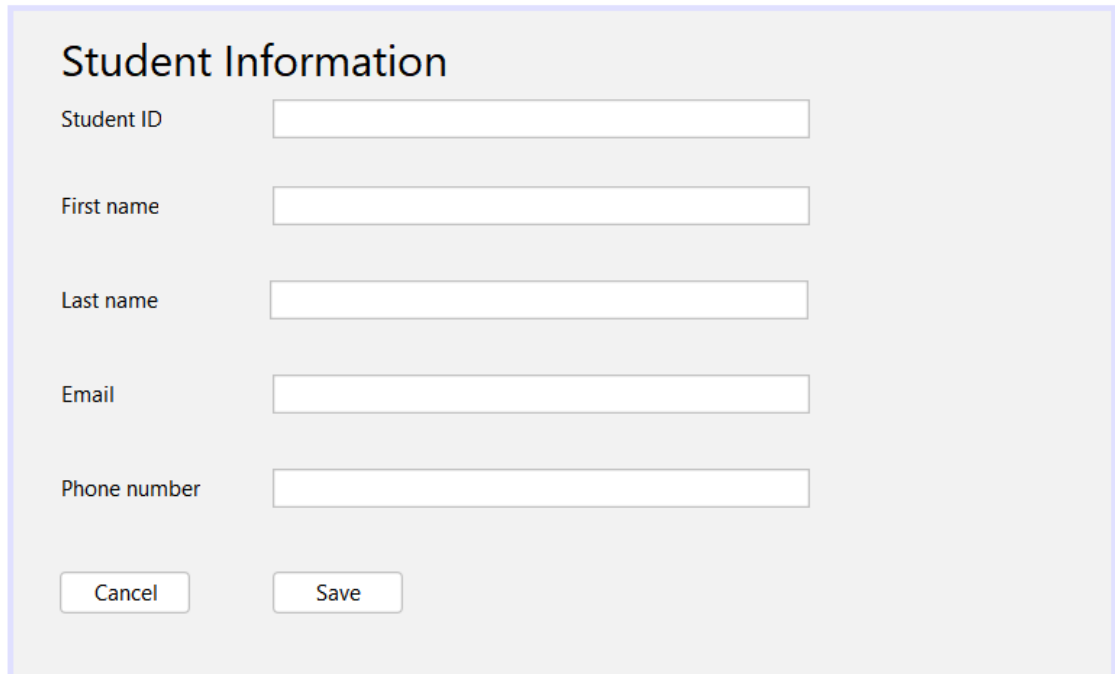
This interface provides access to various functionalities of the TutoBud system.



- **Register as Student:** Leads to a registration form for students.
- **Register as Tutor:** Leads to a registration form for tutors.
- **Book a Reservation:** Opens the reservation booking form.
- **List of Tutors:** Displays a list of registered tutors.
- **List of Students:** Displays a list of registered students.
- **List of Reservations:** Displays a list of all reservations made.
- **Log out:** Logs out the current user.

3. Register as Student

This interface is used to input and save information about a student.



The form is titled "Student Information" and is set against a light gray background. It contains five text input fields, each with a label to its left: "Student ID", "First name", "Last name", "Email", and "Phone number". At the bottom of the form, there are two buttons: "Cancel" on the left and "Save" on the right. The entire form is enclosed in a thin blue border.

- **Student ID:** A unique identifier for each student.
- **First Name:** Text input for the student's first name.
- **Last Name:** Text input for the student's last name.
- **Email:** Text input for the student's email address.
- **Phone Number:** Text input for the student's contact number.
- **Cancel:** Clears the form or navigates away from the form without saving any changes.
- **Save:** Submits the form to the database

4. List of students

This interface displays a list of all registered students and allows for searching and managing student records.

List of Students

Search Search... view record

ID	First Name	Last Name	Email	Phone Number
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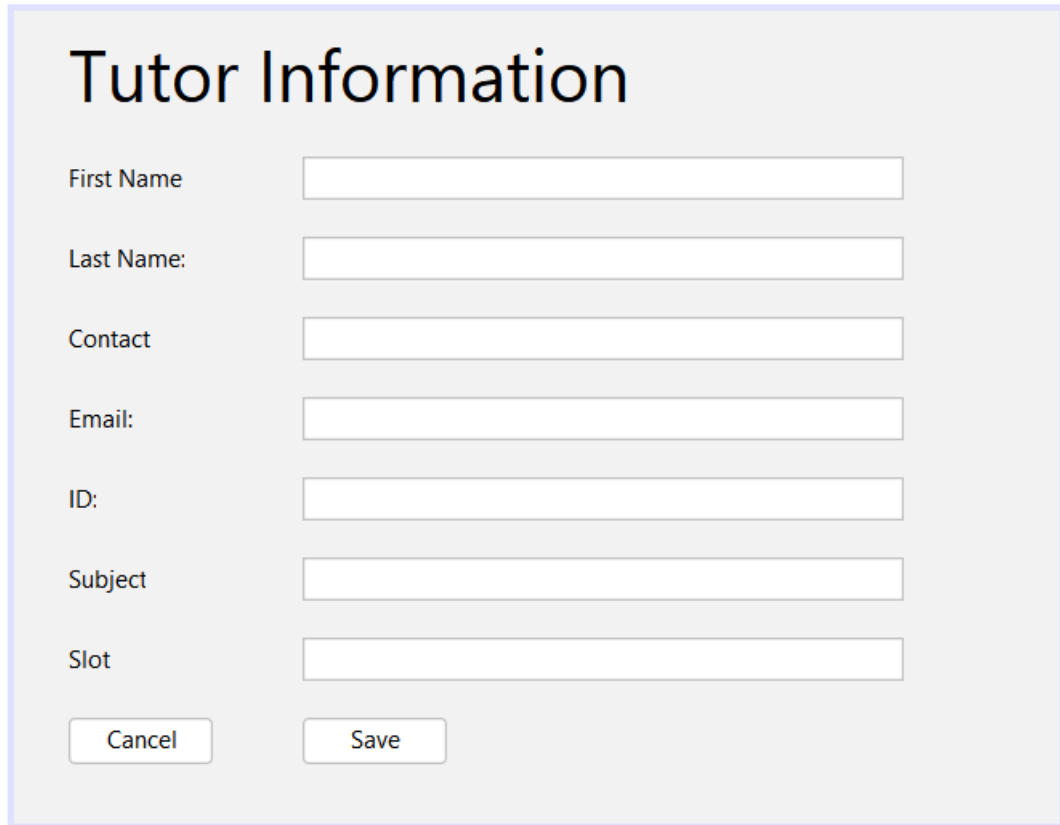
To remove a student, Write the ID: Cancel Add Print

Remove

- **Search Button:** Initiates a search based on the input in the search field.
- **Search Field:** Text input where the user can type in a search query, such as a student's name or ID.
- **Remove Button:** Deletes a student record. The user might need to input the student's ID in the provided field to remove them.
- **Cancel Button:** Cancels the current operation or clears any selections.
- **Add Button:** Adds a new student record
- **Print Button:** Prints the list of students, possibly for offline records or reporting.
- **Tutor Table:** Displays students with columns for ID, First name, last name, email and phone number.

5. Registration for Tutor

This interface is used to input and save information about a tutor.

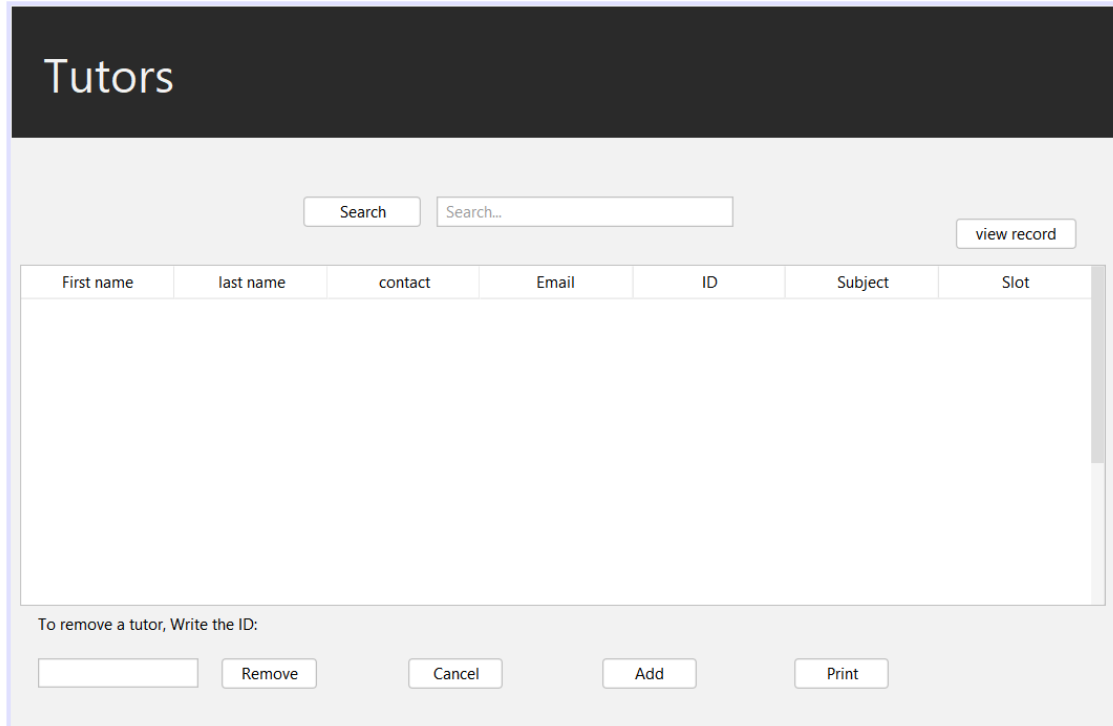


The image shows a web form titled "Tutor Information" with a light gray background and a purple border. The form contains seven text input fields, each with a label to its left: "First Name", "Last Name:", "Contact", "Email:", "ID:", "Subject", and "Slot". Below the input fields are two buttons: "Cancel" on the left and "Save" on the right.

- **First Name:** The tutor's first name.
- **Last Name:** The tutor's last name.
- **Contact:** The tutor's contact information (phone number or other contact details).
- **Email:** The tutor's email address.
- **ID:** A unique identifier for the tutor.
- **Subject:** The subject that the tutor teaches.
- **Slot:** The time slot available for tutoring.
- **Cancel:** To cancel the current operation and clear the fields.
- **Save:** To save the entered tutor information into the system.

6. List of Tutors

This interface displays a list of all registered tutors and allows for searching and managing tutor records.



The screenshot shows a web interface titled "Tutors". At the top, there is a dark header with the title. Below the header, there is a search section with a "Search" button and a text input field labeled "Search...". To the right of the search input is a "view record" button. Below the search section is a table with the following columns: "First name", "last name", "contact", "Email", "ID", "Subject", and "Slot". The table is currently empty. Below the table, there is a section for removing a tutor, which includes a text input field labeled "To remove a tutor, Write the ID:", and four buttons: "Remove", "Cancel", "Add", and "Print".

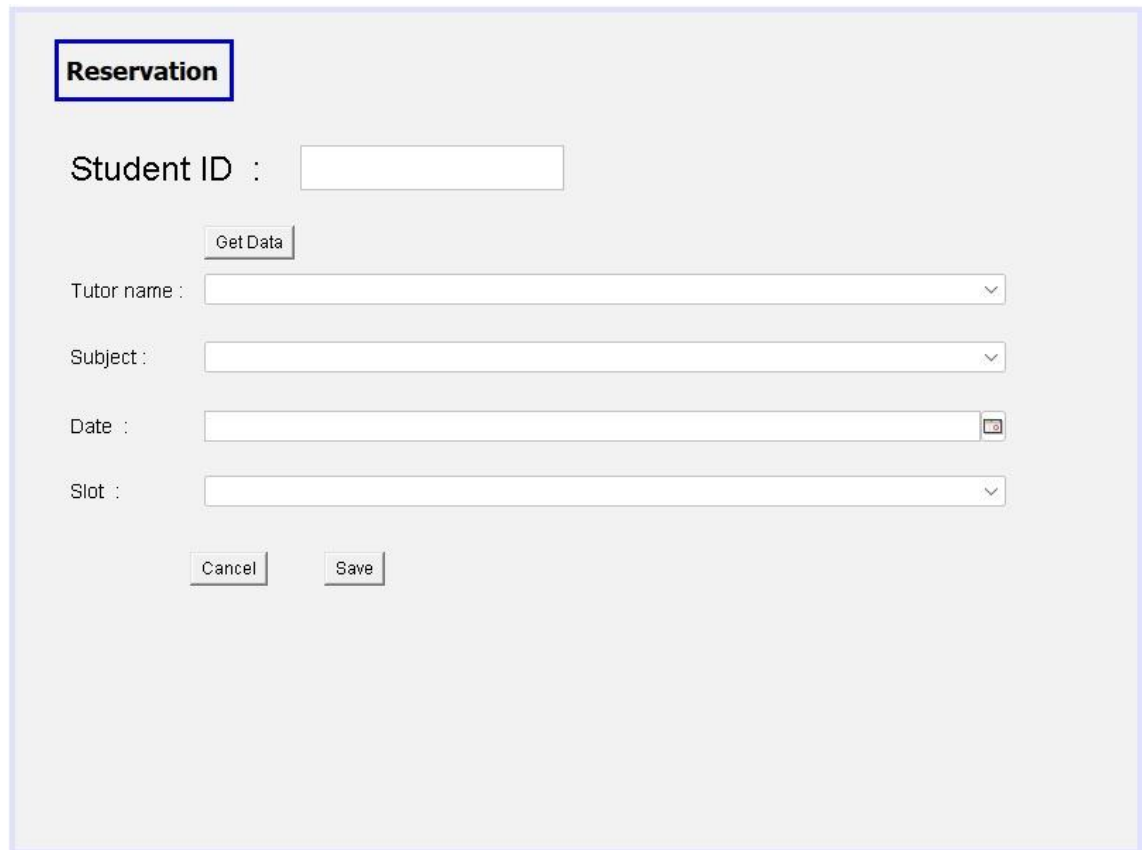
First name	last name	contact	Email	ID	Subject	Slot
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To remove a tutor, Write the ID:

- **Search Field:** Allows users to search for tutors by entering relevant keywords.
- **Search Button:** Executes the search operation based on the entered keywords.
- **view record:** Opens the detailed information of a selected tutor.
- **ID Field:** A field to enter the ID of the tutor to be removed.
- **Remove Button:** To remove the tutor with the entered ID from the system.
- **Cancel:** To cancel the current operation.
- **Add:** To add a new tutor
- **Print:** To print the list of tutors.
- **Tutor Table:** Displays tutors with columns for First name, last name, contact, email, ID, subject and slot.

7. Book a Reservation

This interface is used to book a tutoring session.



The image shows a web form titled "Reservation" in a blue-bordered box. Below the title, there is a text input field for "Student ID :". To the right of this field is a "Get Data" button. Below the "Student ID" field, there are four more input fields: a dropdown menu for "Tutor name :", a text input field for "Subject :", a date picker for "Date :", and a dropdown menu for "Slot :". At the bottom of the form, there are two buttons: "Cancel" and "Save".

- **Student ID:** Input field for the student's ID.
- **Get Data:** Button to fetch and display student details.
- **Tutor name:** Dropdown to select a tutor.
- **Subject:** Input field for the subject of the tutoring session.
- **Date:** Date picker to select the reservation date.
- **Slot:** Dropdown to select the time slot for the reservation.
- **Cancel:** Button to cancel the reservation process.
- **Save:** Button to save the reservation.

8. List of Reservations

This interface displays a list of all reservations and allows for searching and managing reservations.

The screenshot shows a web interface titled "Tutors". At the top, there is a dark header with the title. Below the header, there is a search section with a "Search" button and a "Search..." input field. To the right of the search field is a "view record" button. Below the search section is a table with the following columns: First name, last name, contact, Email, ID, Subject, and Slot. The table is currently empty. Below the table, there is a section for removing a tutor, which includes a text input field and a "Remove" button. To the right of the "Remove" button are three more buttons: "Cancel", "Add", and "Print".

First name	last name	contact	Email	ID	Subject	Slot
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- **Find:** Input field to search for a specific reservation.
- **View record:** Button to display the details of the searched reservation.
- **Reservation Table:** Displays reservations with columns for Student ID, Tutor Name, Subject, Slot, and Date.
- **Remove:** Input field to enter a Student ID and a button to remove a reservation for that student.
- **Cancel:** Button to cancel the current operation.
- **Add:** Button to add a new reservation.
- **Print:** Button to print the list of reservations.

3.0 Unified Modelling Language

