

GROUP 5 PRESENTS



# *AlphaBI*

"The convenient platform that you must have if you are a student  
or a lecturer"



# OUR PROJECT LOGO

---



# INTRODUCTION

---

As we know in the post COVID-19 world, a lot has changed to prevent the spread of the disease. This includes the educational sector, as educational institutions start to implement online distance learning or ODL as a new learning method. As everything is now in an online based manner, many teachers and students faced multiple problems to fully comprehend this new norm. This is where our app "AlphaBi" comes in as the new solution for this problem. With the help of cloud computing, which is known by 4th Industrial Revolution technologies helped us to build our app perfectly as cloud computing provides the on-demand availability of computer system resources, particularly data storage (cloud storage) and computational power, without the need of the user to actively manage them. Cloud computing also relies on resource sharing to achieve coherence and economies of scale, often through a "pay-as-you-go" approach, which can assist in reducing our capital costs while potentially exposing customers to unanticipated running costs. This approach will benefit the users and also us as the creators.



# CLIENT'S PROBLEM

Too many apps that students and lecturers have to install.

Too much storage needed to use every apps that they use.

Delay in announcing grades.

Inconvenient platform to contact lecturers.

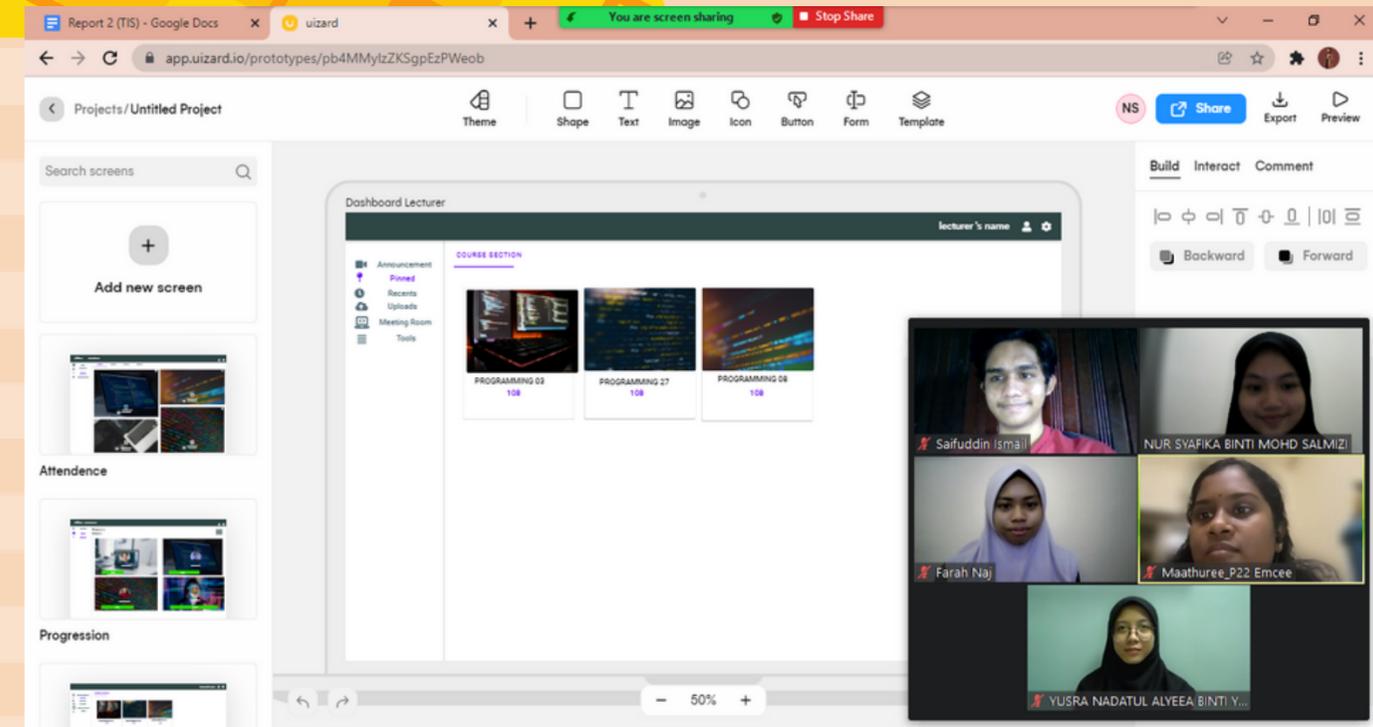
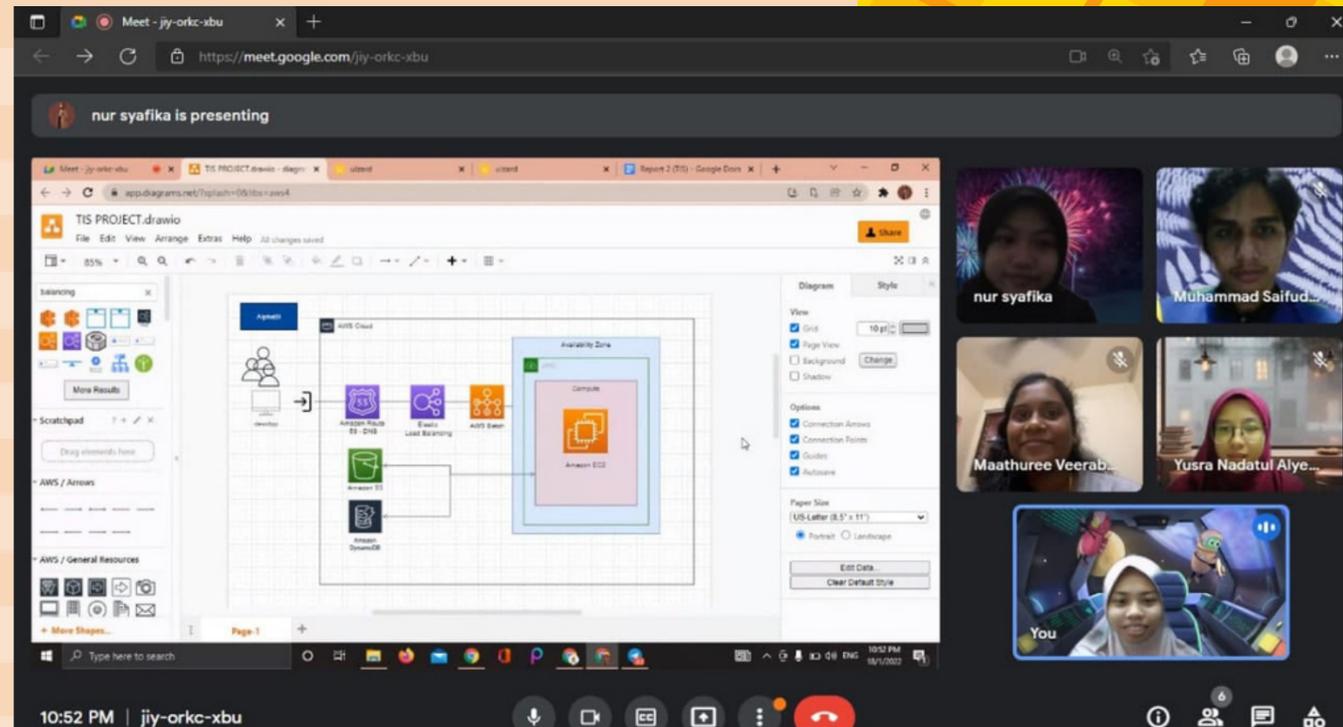
# SOLUTION

We will summarize all on-demand tools for Bioinformatics course students that using popular software such as NetSurfP, NetTurnP, MODELLER, AutoDock, Gromacs and OrfPredictor in one software. This software platform is designed to teach bioinformatics concepts and methods including Rosalind and online courses offered by the Swiss Bioinformatics Institute, videos and slides from the Canadian Bioinformatics Workshop and other related bioinformatics courses that have been combined under one software platform. This will provide more interactive and easy-to-use tools that will simplify the process and students can create their own workflows accurately.



0001Q2315204L900Q829000

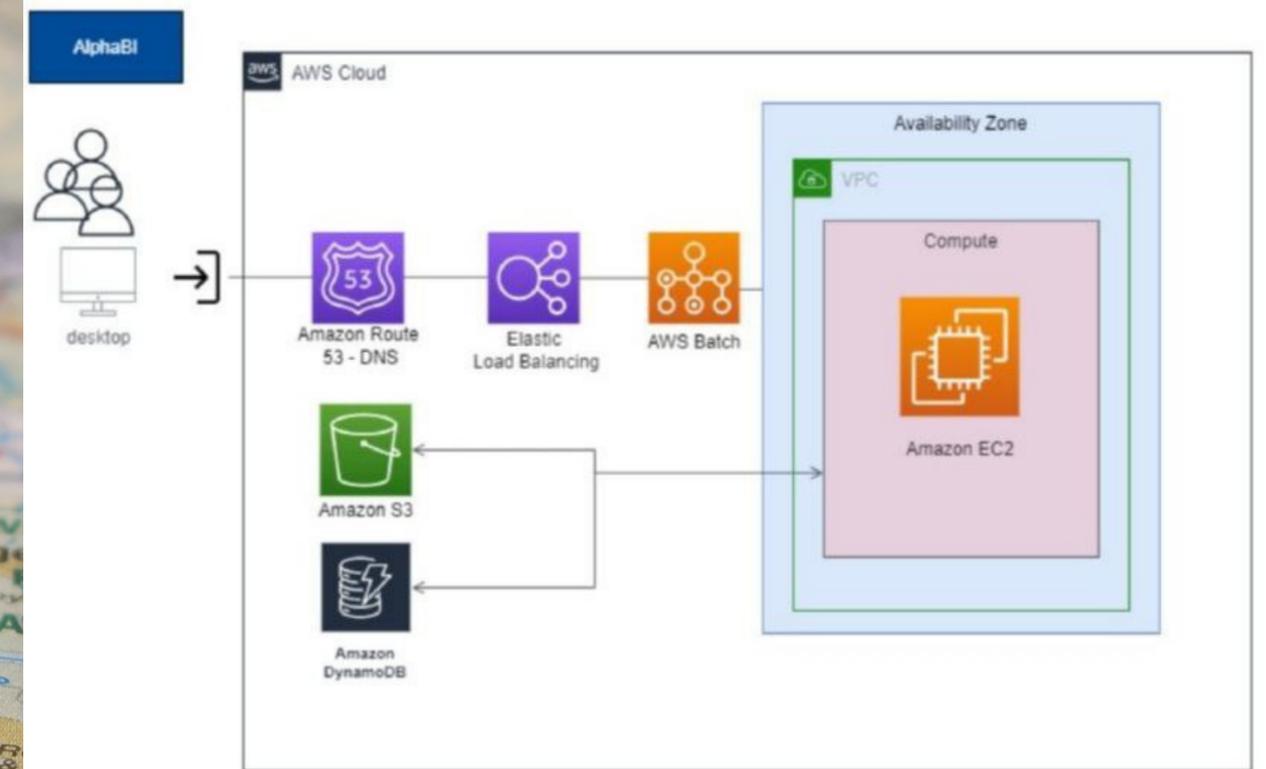
# TEAM WORKING



**WE BEGAN TO ASSIGN VARIOUS DUTIES AS A RESULT OF BRAINSTORMING AND IDEAS PROVIDED BY EACH GROUPMATE. WE BEGAN ATTEMPTING TO COMPREHEND THE PROJECT'S PRINCIPAL GOAL, BEFORE COLLECTING DATA AND EXAMINE WHAT SHOULD BE INCLUDED IN THE SOFTWARE. THEN, WE CHOSE WHICH SOFTWARE TO USE AND STARTED COLLECTING DATA FROM VARIOUS SOURCES. THEN, WE BEGAN TO VISUALISE SCHEMATICS AND SKETCHES WITH EXPLANATIONS. IT AIDS IN THE DEFINITION AND ANALYSIS OF EACH PROCESS.**

**WE ALSO HAD VIRTUAL DISCUSSION THROUGH GOOGLE MEET TO DISCUSS THE COST OF OUR PROJECT IN DETAIL AND TO IDENTIFY THE POTENTIAL INVESTORS TO HELP US FUND IN. WE ALSO TALK ABOUT OUR FUTURE MARKET AND HOW TO REACH THE PEAK OF THE MARKET EFFECTIVELY AS WE STRIVE TO FIGURE OUT THE BEST MARKETING APPROACH TO USE.**

# aws ARCHITECTURE DESIGN



## Virtual Private Cloud

Establishes a separate virtual network environment for our AWS account to provide cloud services, other AWS resources and services run inside VPC networks to surely provide us with the software we need to create this platform without the need of high end computer.

## Amazon DynamoDB

- Provides fast and predictable performance with seamless scalability.
- Allows us to unload the administrative load to operate and scale a distributed database so that we no longer have to worry about hardware allocation, setup and configuration, replication, software patching or batch scaling.

## Amazon Elastic Load Balancing

Automatically distributes incoming application traffic and scales resources to meet traffic demand.

## Amazon S3

- Optimize, organize, and configure data access to meet our specific business, organizational, and compliance needs.
- Offers industry-leading scalability, data availability, security, and performance that meet our demand to create the software platform.

## Amazon Route 53

- Links the user requests to infrastructure running within AWS such as Amazon EC2, Elastic Load Balancing or Amazon S3 buckets and it can also be used to route users to infrastructure outside of AWS.
- Configure DNS health levels, then continuously monitor our apps ability to recover from failures and control the recovery of those apps.

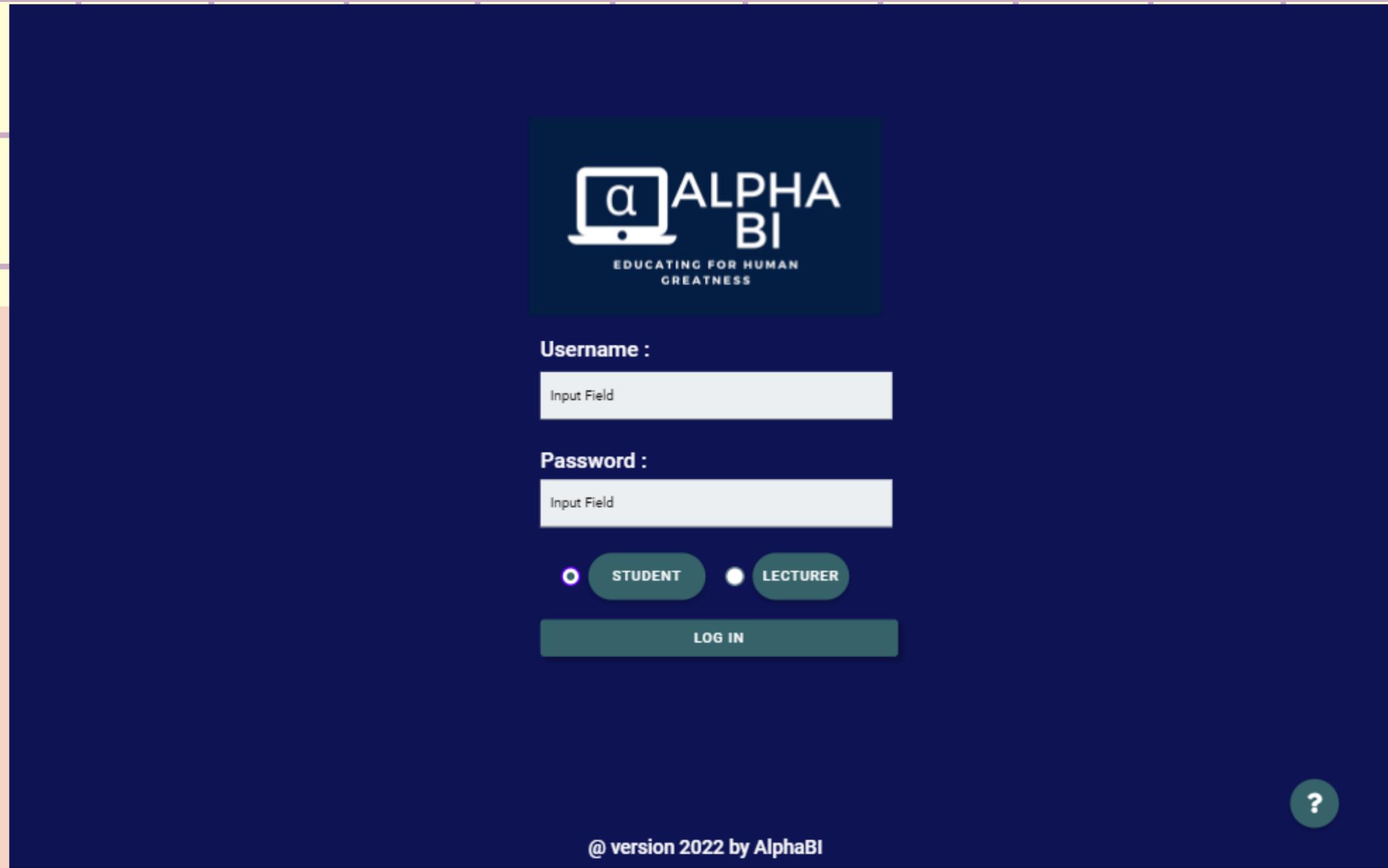
## Amazon Elastic Compute Cloud (EC2)

- Provides scalable computing capacity in Amazon Web Services Cloud (AWS).
- Eliminates our need to invest in hardware up front, so we can develop and deploy apps faster.

## AWS Batch

Helps us run batch computing workloads on the AWS Cloud by removing undifferentiated heavy loads to configure and manage the required infrastructure, similar to traditional batch computing software.

# BUSINESS PROCESS FLOW



The image shows a login form for AlphaBI. At the top, there is a logo for AlphaBI with the tagline "EDUCATING FOR HUMAN GREATNESS". Below the logo, there are two input fields: one for "Username" and one for "Password". Underneath the password field, there are two radio buttons: "STUDENT" (which is selected) and "LECTURER". A "LOG IN" button is located below the radio buttons. At the bottom of the form, there is a copyright notice "@ version 2022 by AlphaBI" and a help icon (a question mark in a circle).

**ALPHA BI**  
EDUCATING FOR HUMAN GREATNESS

Username :  
Input Field

Password :  
Input Field

STUDENT  LECTURER

LOG IN

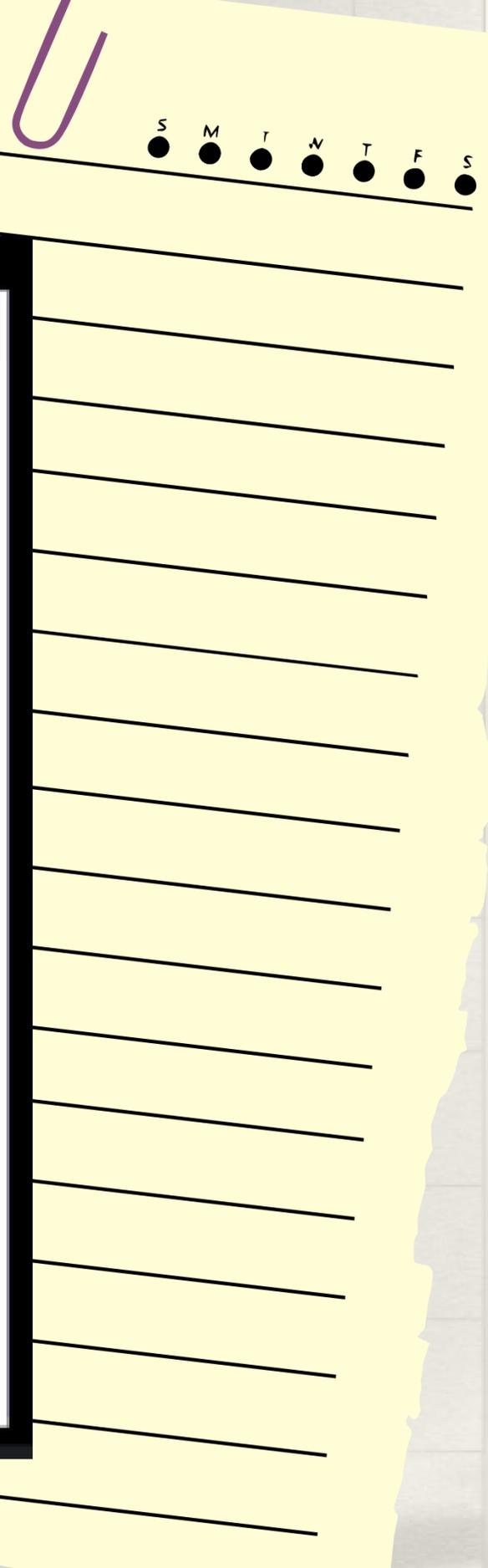
@ version 2022 by AlphaBI

[HTTPS://APP.UIZARD.IO/P/7B172C94](https://app.uizard.io/p/7B172C94)

# STUDENT LOGIN

The screenshot shows a student login dashboard. At the top right, it displays "student's name" with a user icon and a settings gear icon. On the left, there is a navigation menu with the following items: Announcement, Pinned, Recents, Report Card, Meeting Room, and Tools. The main content area is titled "COURSE" and features three course cards:

- TECHNOLOGY INFORMATION AND SYSTEM 120**: Card with a night cityscape background.
- DISCRETE STRUCTURE 205**: Card with a cityscape background.
- PROGRAMMING 108**: Card with a code editor background.



AlphaBI Technology Information System

- Badges
- Notes
- Recorded Lecture
- Assessment
- Important Date
- Contact



Total interactions 205

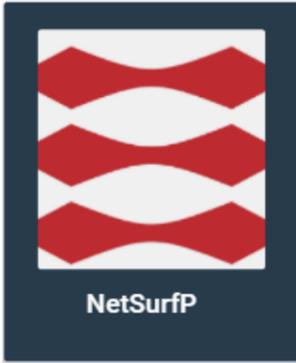
Lecture's Name : Aida

# COURSES INFO

AlphaBI Report Card

	Assignment Mark	Test Mark	Total Mark	Grade
 TECHNOLOGY INFORMATION AND SYSTEM 120	Assignment 1 : Assignment 2 : Assignment 3 : Assignment 4 :	Test 1 : Test 2 :	Total :	
 DISCRETE STRUCTURE 205	Assignment 1 : Assignment 2 : Assignment 3 : Assignment 4 :	Test 1 : Test 2 :	Total :	
 PROGRAMMING 108	Assignment 1 : Assignment 2 : Assignment 3 : Assignment 4 :	Test 1 : Test 2 :	Total :	

AlphaBI Tools



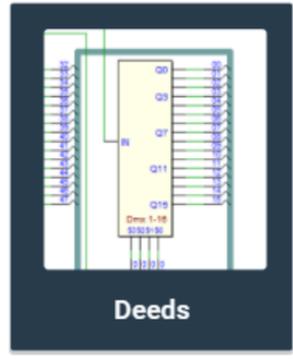
NetSurfP



NetTurnP



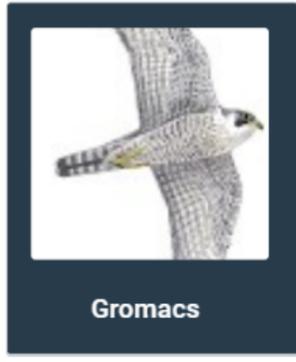
MODELLER



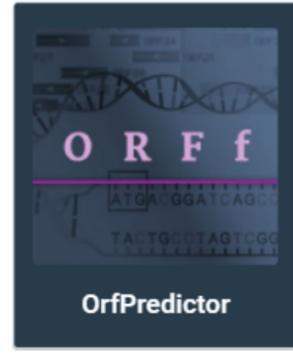
Deeds



AutoDuck



Gromacs



OrfPredictor



Code Blocks



# STUDENT TOOLS

# CLASS MEETING TOOLS

AlphaBI Meeting Room



# LECTURER LOGIN

The screenshot displays a web interface for a lecturer login. At the top right, there are icons for a user profile and settings. On the left side, a vertical navigation menu includes the following items: Announcement, Pinned, Progression, Achievement, Meeting Attendance, Archive, Feedback, and Lectures Feed. The main content area is titled "COURSE SECTION" and features three course cards. Each card contains a representative image and the course name and ID.

Course Name	Course ID
PROGRAMMING 03	108
PROGRAMMING 27	108
PROGRAMMING 08	108

# FEATURE FOR LECTURER

The AlphaBI Progression interface displays a grid of lecture slides for Section 01 (ABZ3235) in Week 8. A progress bar on the left indicates 40% completion. The slides are arranged in two columns: LECTURE 1, 2, and 3 on the left; LECTURE 4, 5, and 6 on the right. Each slide has a play button icon. A sidebar on the left shows 'Student's progression percentage' for Lecture (40%), Attendance (30%), Industry Talk (20%), and Feedback (20%).

**Progression**

The AlphaBI Attendance interface shows a grid of class attendance photos for Section 01 (ABZ3235) in Year 1. The interface includes a sidebar with 'Date', 'Schedule', 'Section', and 'Recents class'. The main area displays four photos of students in a classroom setting, each with a name and ID: SECTION 01 (24 PEOPLE), SECTION 07 (32 PEOPLE), SECTION 24 (34 PEOPLE), and SECTION 32 (28 PEOPLE). The interface also features a 'Recents' sidebar and a 'Date' dropdown menu.

**Attendance**

The AlphaBI Achievement interface displays the profile of Dr. Angela Peter. The profile includes her name, a photo of her holding an orange folder, and a list of achievements: DEGREE OF DOCTOR PHILOSOPHY IN PROGRAMMING UNIVERSITY OF YALLE, BEST CLASS ACADEMIC PERFORMANCE 2020, HEAD OF COMPUTING DEPARTMENT UNIVERSITY OF YALLE, and BEST PAPER AWARD ON THE EMERGANCE OF A.I. IN IPCO XXII.

**Achievement**

The AlphaBI Feedback interface displays a grid of student feedback photos for Section 08. The interface includes a sidebar with 'Section' and 'SECTION 08 FEEDBACK'. The main area displays four photos of students in a classroom setting, each with a name and ID: JUSTIN RIZMAN (ABZ3235), SOPHIA AHMAD (ABZ6756), AINA ABDUL (ABZ4567), and AHMAD HANIFF (ABZ3492). The interface also features a 'Recents' sidebar and a 'Date' dropdown menu.

**Feedback**

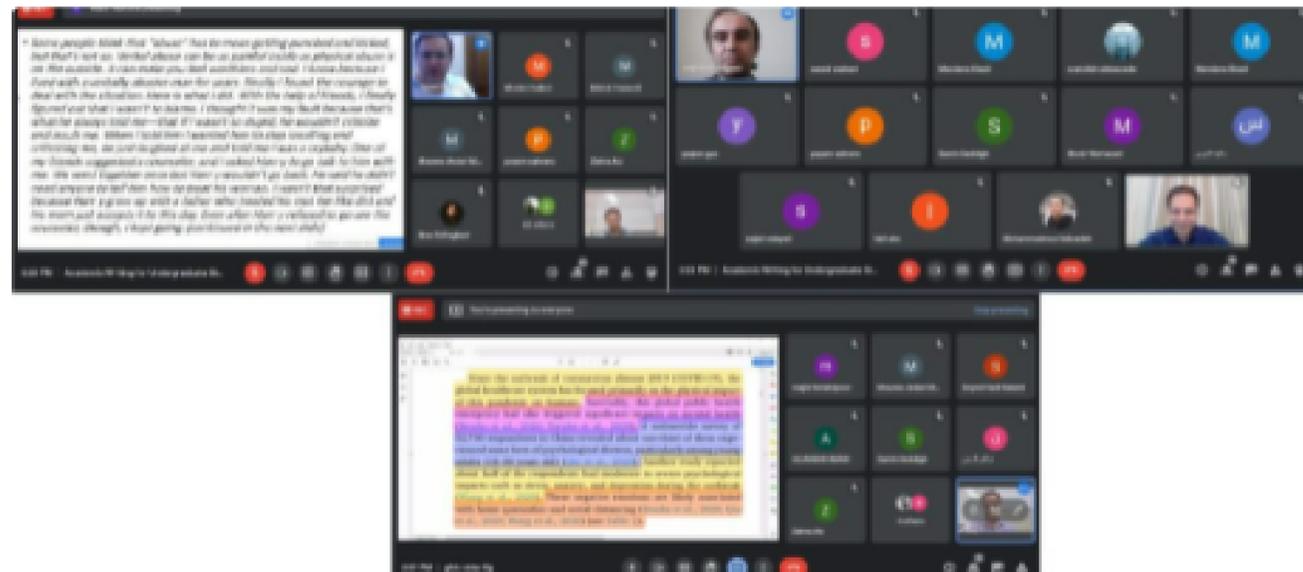
# Explore

Search for a destination  



Volunteer @ Pitch Secured the VLDP Seed Funding to Embarks on  Agriculture Project in Rural Community

Five representatives from Volunteer@ UTM Club , Muhammad Najmie Aduka Mutmin (President), Huda Najihah Ahmad Asri (Deputy President), Mohamad Akmal Zulhakkim Mohaini (Grand Treasurer), had embarked on a new challenge in this year's Volunteer Leadership Development Programme (VLDP) 2021 on the 2th until 4th December 2021..... more



UTM and Iran Universities Organized Academic Writing  Course Series for Undergraduates

In line with Online Classroom Scheme, the Academic Writing Undergraduate Course was conducted virtually through Google Meet Platform. The course was run by Language Academy, Faculty of Social Sciences and Humanities..... more

# CONCLUSION

## FUNCTIONALITY - ALL IN ONE SOFTWARE

Since too many apps needed to install with insufficient space, we summarize all on-demand tools for bioinformatics course in one software.

## USABILITY - CONDUCTIVE USE

Lecturers and students can easily contact each other by a platform service provided.

## EFFICIENCY

Abilities for students and lecturers to update the latest information such as result, homework or any announcement.

## PORTABILITY

Students and lecturers can access to the portal and have class anywhere. At the same time, students able to complete their work with ease without the need of additional device or a physical venue since all the features are in Alpha BI can be access anywhere via internet

*Thank you!*

