GROUP 5 PRESENTS

AlphaBI

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

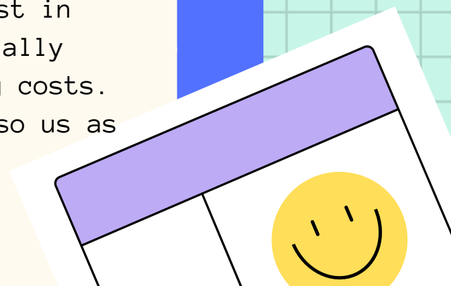
OUR PROJECT LOGO

ALPHA BI

EDUCATING FOR HUMAN GREATNESS

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.

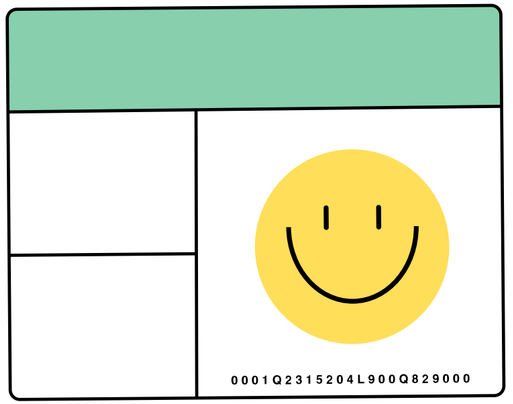
Too much storage needed to use every apps that they use.

Delay in announcing grades.

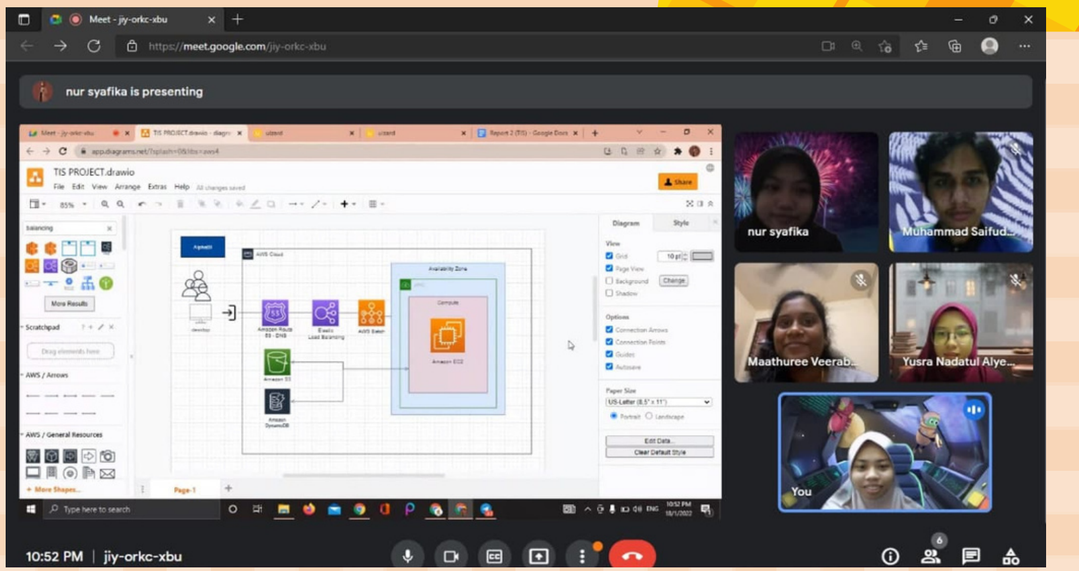
Inconvenient platform to contact lecturers.

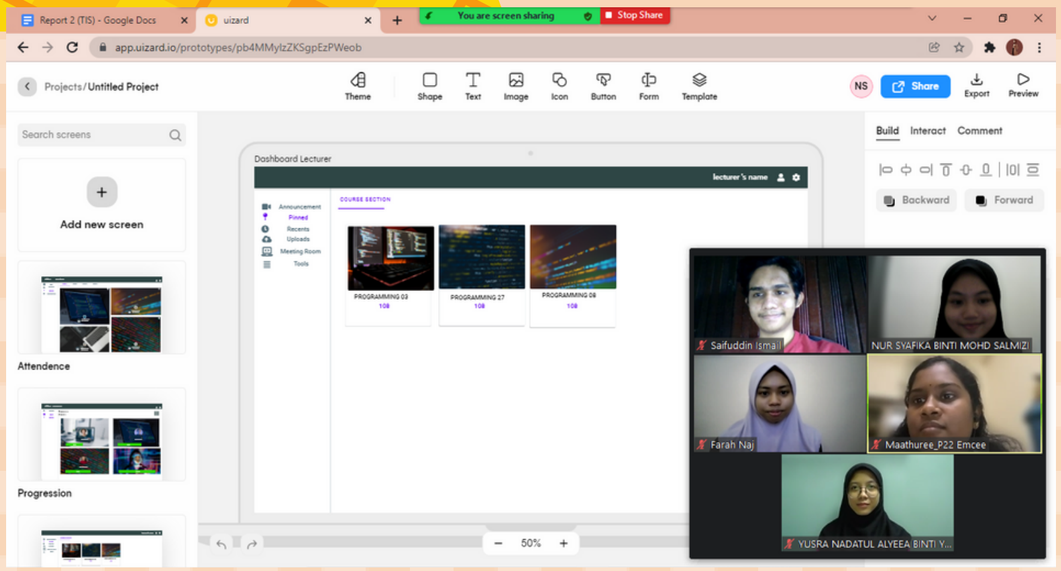
SOLUTION

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.



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.

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 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.

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.

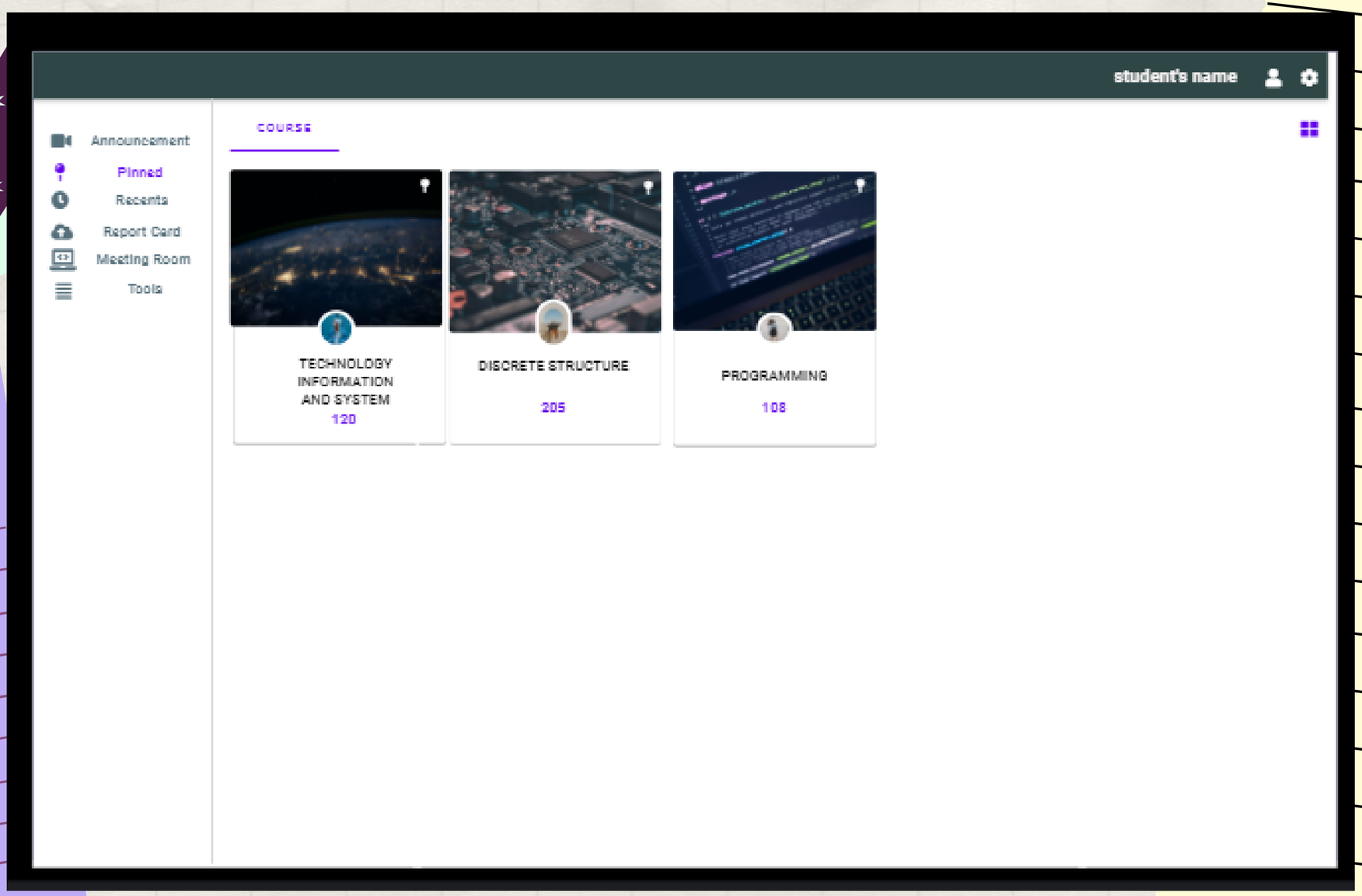
AWS Batch

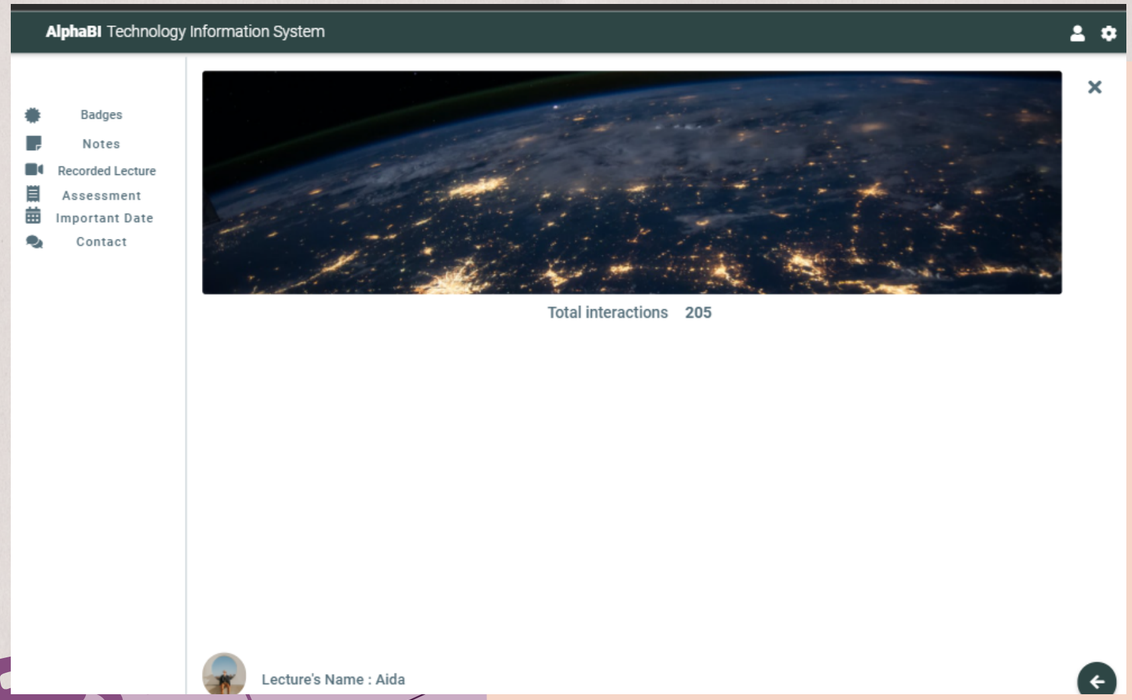
Helps us run batch computing workloads on the AWS Cloud by removing undifferentiated heavy loads to configure and manage the required infrastructure, similar to traditional batch computing software.

BUSINESS PROCESS FLOW

HTTPS://APP.UIZARD.IO/P/7B172C94

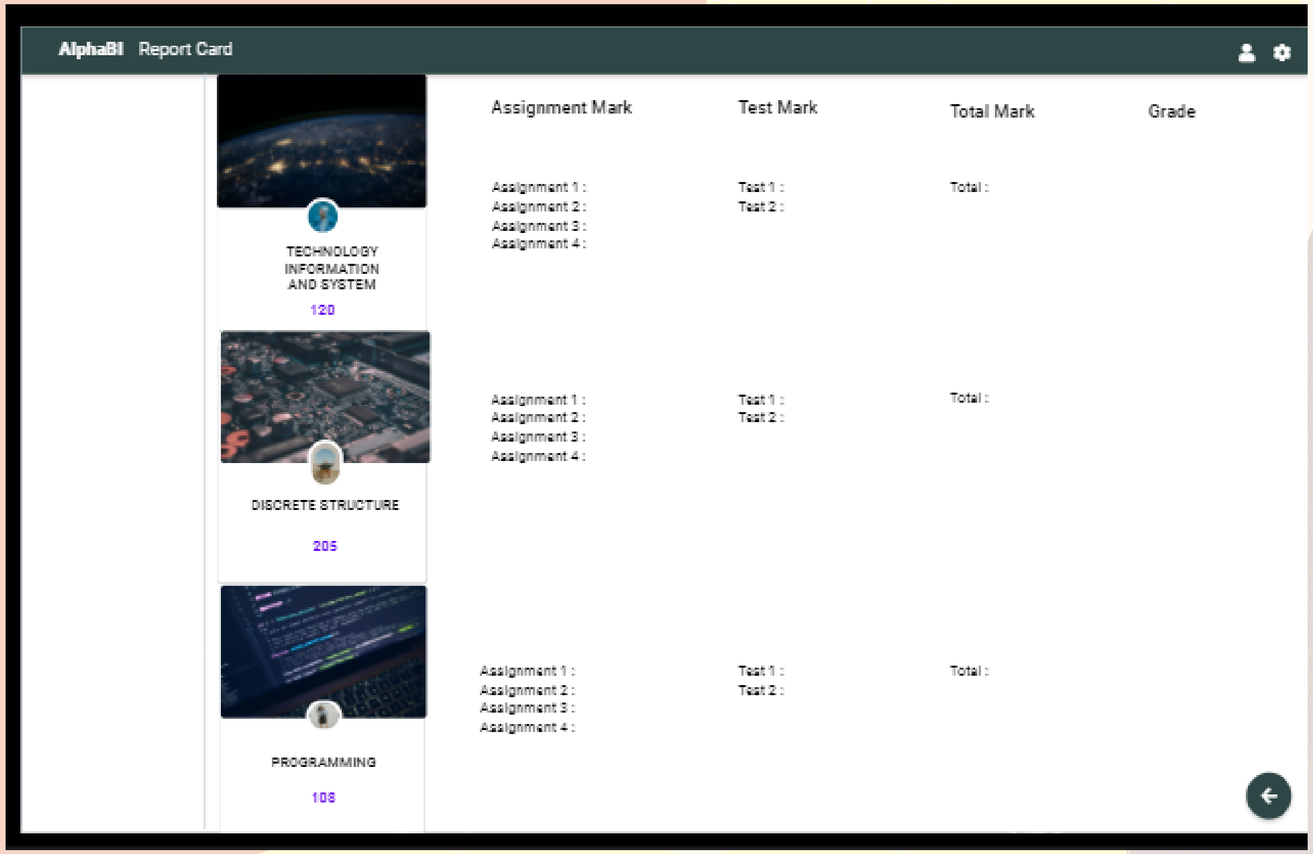
STUDENT LOGIN

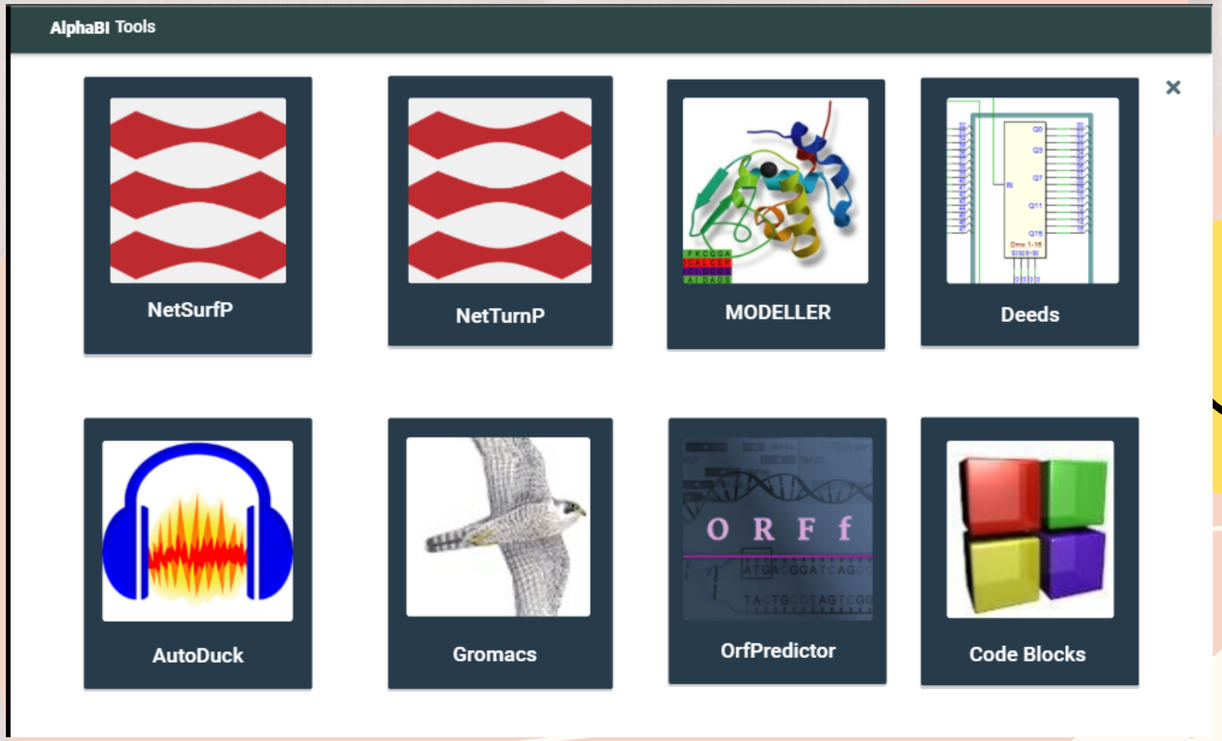




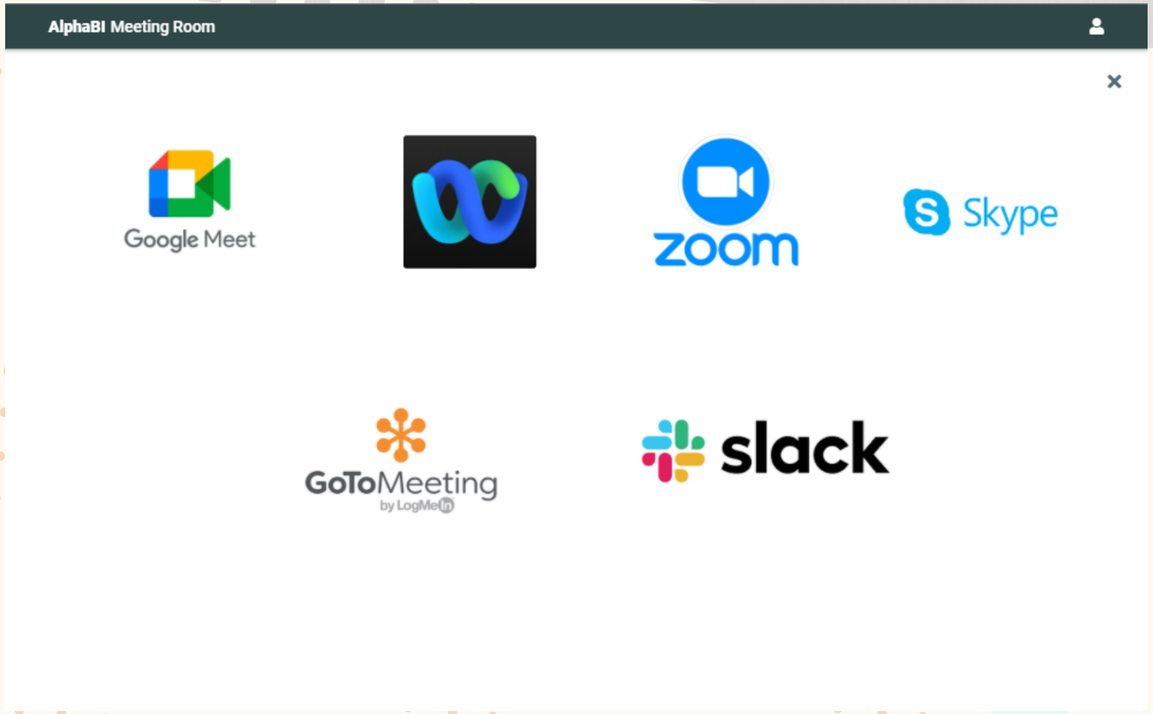
COURSES INFO

REPORT CARD



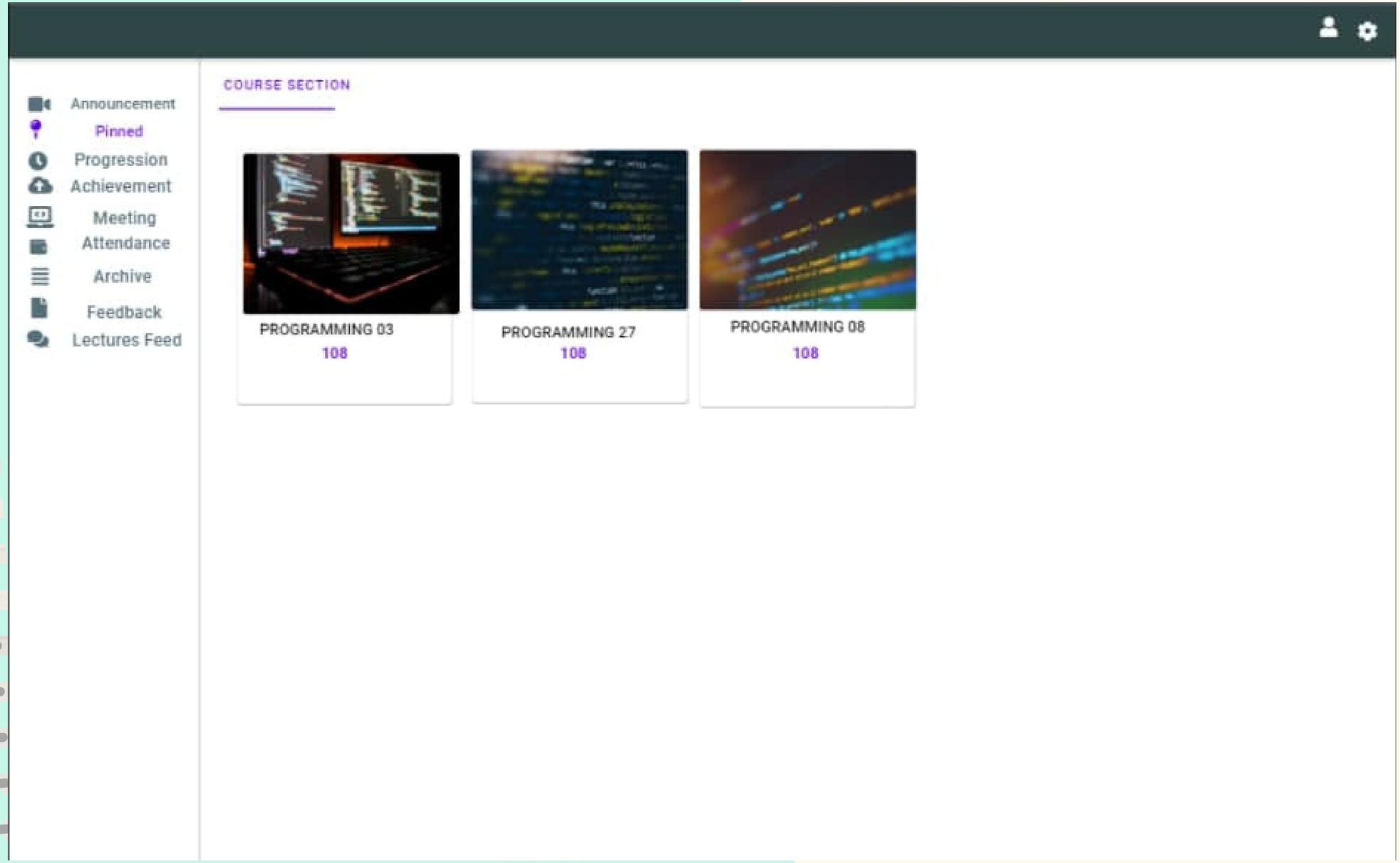


STUDENT TOOLS

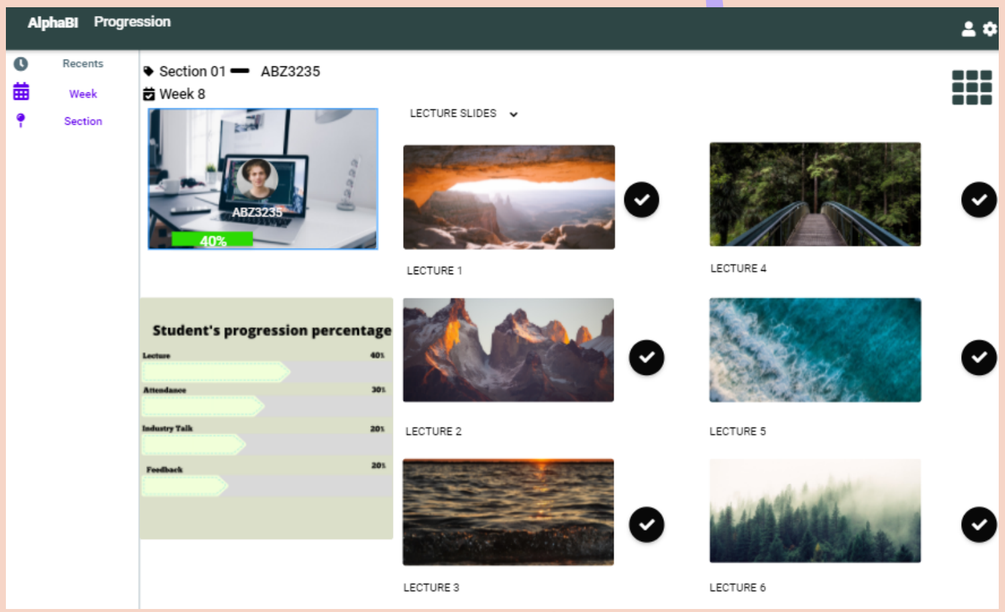


CLASS MEETING TOOLS

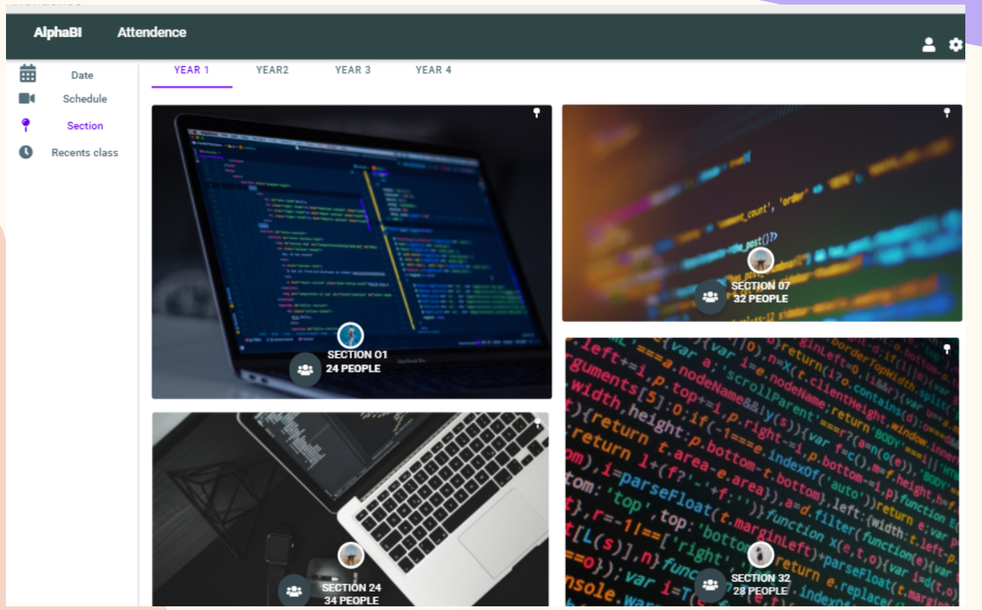
LECTURER LOGIN



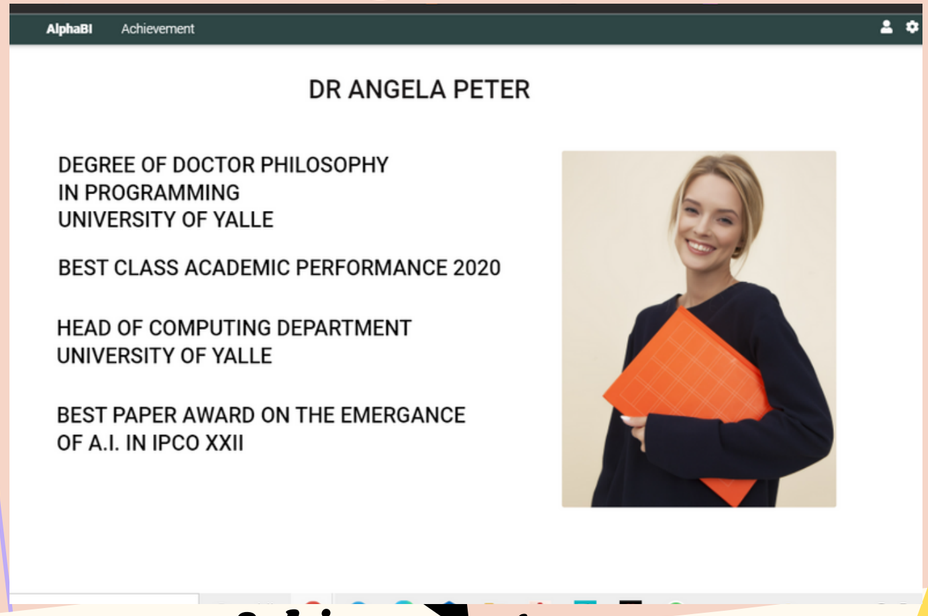
FEATURE FOR LECTURER



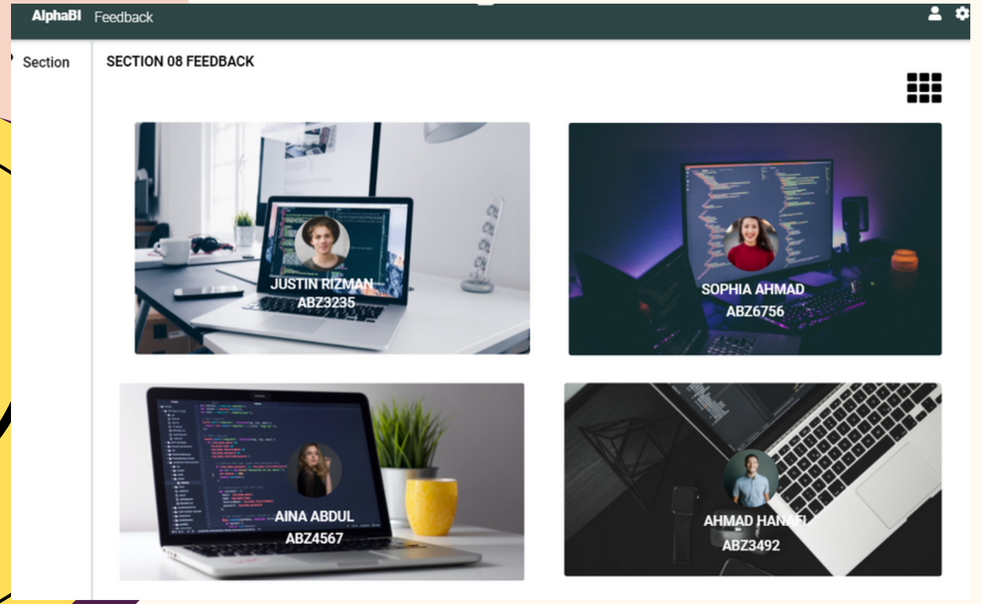
Progression



Attendance



Achievement



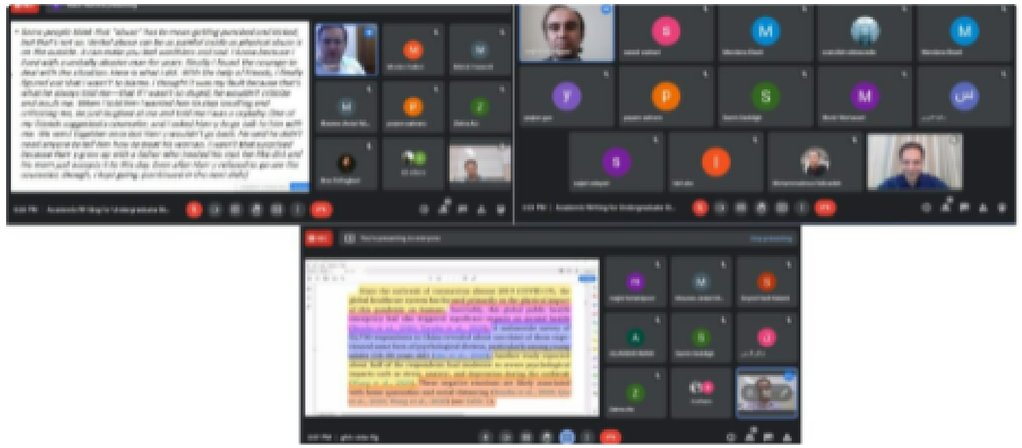
Feedback

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!