Microsoft Engage 2021

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The Challenge

Build a functional prototype of a platform that gives students an array of digital academic and social tools to stay engaged with their studies, peers and broader university community during pandemic.

Solution

Built a fully functional website for allowing students to self-study and share notes with other peers. The platform is basically an all-in-one study and note-sharing portal for students.

Description:
The website is a portal for studying having all the basic features that a student might need while studying. It also allows users to share their notes with other users.

Technologies Used:
Django, HTML, CSS, JavaScript

Database:
SQLite

Deployed on:
Azure portal

Links:
Github repository: https://github.com/shumbul/Microsoft-Engage
Website: http://engage-portal.azurewebsites.net/

Notable Features:
- Social accounts authentication while signing up and signing in
- Pending ToDos and Homeworks are displayed on profile
- Publically available features (works without signing in):
    - Youtube search
    - Books search
    - Dictionary word finding
    - Wikipedia search
    - Conversion of length and mass
- Main features requiring sign in:
    - Notes creating and sharing
    - Homework creating and setting a deadline
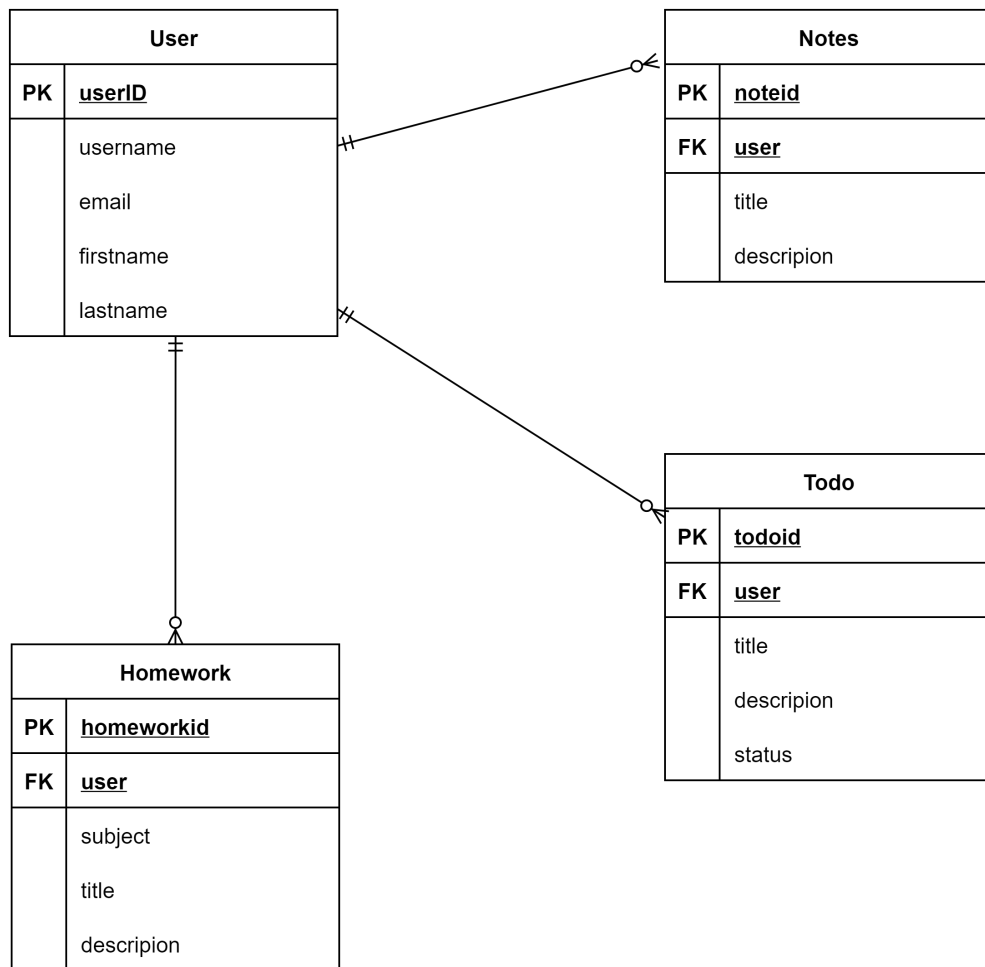   - Todo creating and setting a deadline

ER Diagram

User	
PK	<u>userID</u>
	username
	email
	firstname
	lastname

Notes	
PK	<u>noteid</u>
FK	<u>user</u>
	title
	descripion

Homework	
PK	<u>homeworkid</u>
FK	<u>user</u>
	subject
	title
	descripion

Todo	
PK	<u>todoid</u>
FK	<u>user</u>
	title
	descripion
	status

Figure: ER Diagram of the models in the Engage Portal

HOME PAGE

This is the home page or dashboard of the website having all the tools displayed in the form of tiles. It is accessible globally, and the user need not be signed in to access this page. Although, a user has to be signed in in order to access Notes, Homework, and Todo. Thus, when any of these is selected it redirects the user to the sign-in page. The default header of the template includes Home, Register, Sign-in for anonymous users and Home, Profile, Options (dropdown), and Sign-out for a logged-in user.
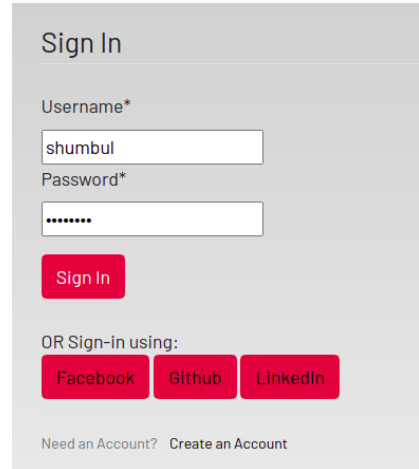
TOOLS:
1. Notes:
    a. Create note
    b. Delete note
    c. Share note with other users
2. Homework:
    a. Add homework
    b. Update homework
    c. Delete homework
3. Todo:
    a. Create task
    b. Update task
    c. Delete task
4. Books
5. Youtube
6. Wikipedia
7. Dictionary
8. Conversion:
    a. Convert mass units
    b. Convert length units
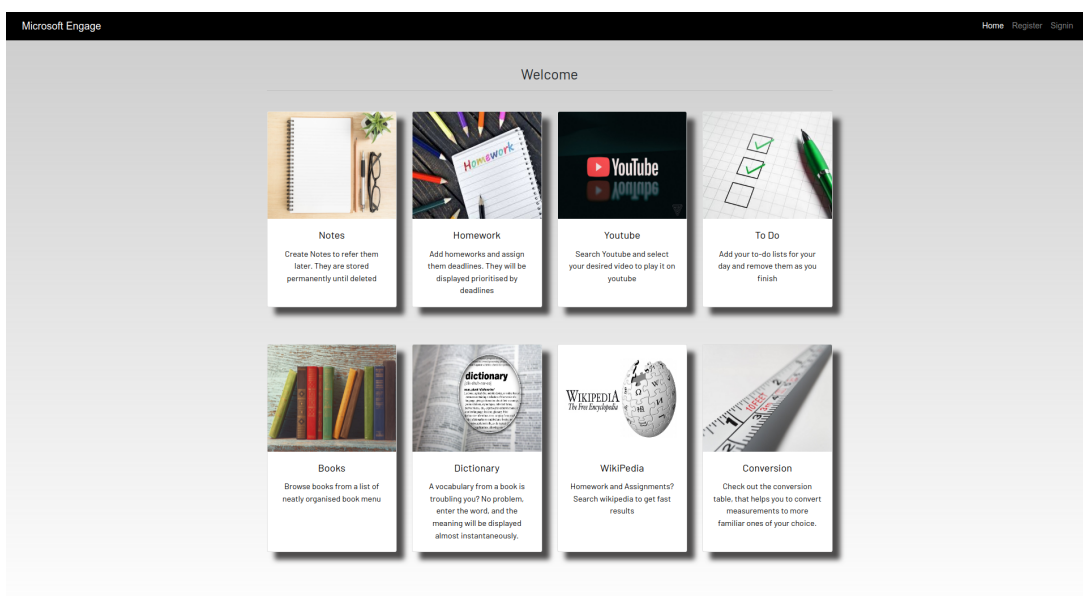
SIGN-IN and REGISTER
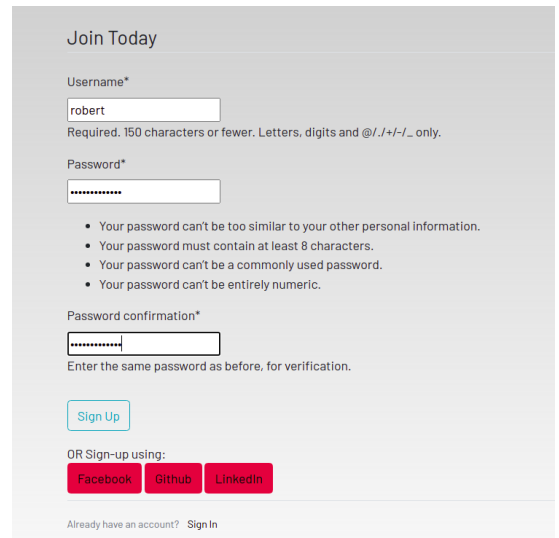
1. Sign-in:
   a. Takes up the fields:
      i. Username
      ii. Password
   b. Other ways to sign-in is using:
      i. Facebook
      ii. Github
      iii. LinkedIn
   c. An option to Create a new account

2. Register: To register a new user
   a. Take up the fields:
      i. Username
      ii. Password
      iii. Password Confirmation
   b. Other ways to sign-up are using:
      i. Facebook
      ii. Github
      iii. LinkedIn
   c. An option to Sign in to an existing account

PROFILE

Displays all the Todos and Due Homeworks for a user

NOTE: This functionality is only accessible to logged-in users

The page has two tables as shown in the diagram below, and each of those has a check-box and delete button, and also a corresponding button to go to the respective pages.

NOTES

Allows creating, deleting, and sharing of notes with other users
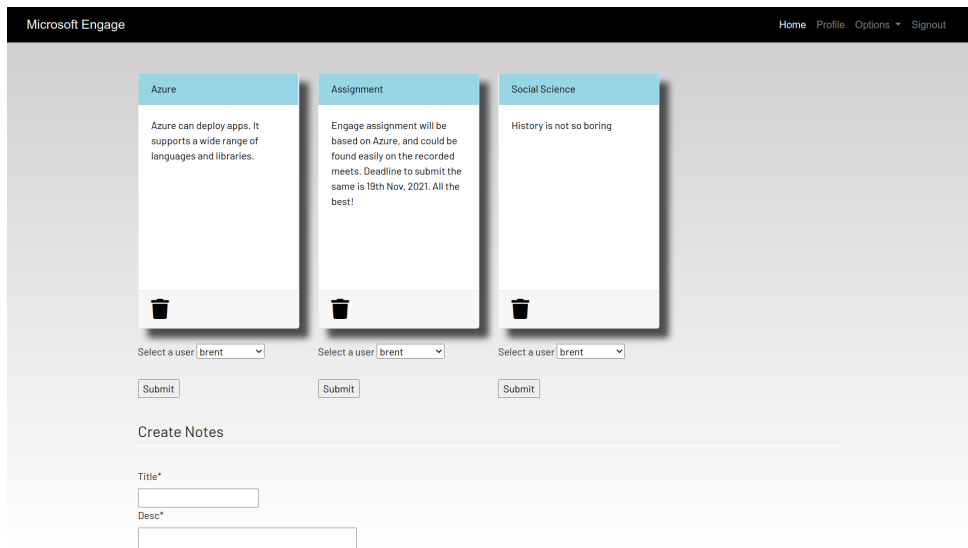
Create Notes:
- Takes up the fields Title and Description of a note
- Success message pops up once a note is created

Notes:
- Displayed in the form of tiles
- Deleting a note is allowed
- Sharing the note to other users is allowed
- Message pops up once a note is shared or deleted

HOMEWORKS

Displays homeworks and allows creating, deleting, and checking the completion status of homeworks

#	Subject	Title	Description	Due Date	Status	Delete
1	Wrong cumulative score	Correction	Lorum Ipsum	Nov. 28, 2021, 9 a.m.	☑ Mark as Completed	🗑
2	Economics	Assignment	Questions in Eco	Nov. 19, 2021, midnight	☑ Mark as Completed	🗑
3	Physical Education	Final assignment	Phy Edu. final assignment - 35 marks Submit in PE Room	Dec. 18, 2021, midnight	☑ Mark as Completed	🗑
4	Project Submission	Engage Project	Completed Deploying. Now make a video and submit.	Nov. 28, 2021, midnight	☐ Mark as Completed	🗑

Create Homeworks:
- Takes up the fields Title, Description, Due Date, Status
- Success message pops up once homework is created

Create Homework

Subject*

New homework

Title*

Azure lessons

Desc*

Complete Microsoft Azure tutorials from yout

Due*

15/11/2021

☑ Is finished

Create

Notes:
- Displayed in the form of a table
- Checking the completion status of homework is allowed
- Deleting a homework is allowed
- Message pops up once an item is deleted

TODO

Displays items in todo list, and allows creating Todo items

#	Title	Descritpion	Status	Delete
1	Wake up early	at 6 am	☐ Mark as Completed	🗑
2	Submit Microsoft Engage Project	It was fun building this website! Now submit on: https://microsoft.acehacker.com/fte2021/#sprint	☐ Mark as Completed	🗑
3	Go to bed early	at 11 pm	☑ Mark as Completed	🗑

Create Todo:
- Takes up the fields Title, Description, Status
- Success message pops up once a todo item is created

Create Todo

Title*

Desc*

☐ Is finished

Create

Notes:
- Displayed in the form of a table
- Checking the completion status of a todo item is allowed
- Deleting a todo item is allowed
- Message pops up once an item is deleted

DICTIONARY

Allows searching words from the dictionary

Features:
- Pronunciation
- Phonetics
- Definition
- Example for the word
- Synonyms

WIKIPEDIA

Displays pages from Wikipedia of the searched keywords

Search articles in wikipedia

enter the search query to obtain the results

Enter (without any space)
Enter To Search *

Microsoft

Submit

Microsoft

Microsoft
https://en.wikipedia.org/wiki/Microsoft

Microsoft Corporation is an American multinational technology corporation which produces computer software, consumer electronics, personal computers, and related services. Its best known software products are the Microsoft Windows line of operating systems, the Microsoft Office suite, and the Internet Explorer and Edge web browsers. Its flagship hardware products are the Xbox video game consoles and the Microsoft Surface lineup of touchscreen personal computers. Microsoft ranked No. 21 in the 2020 Fortune 500 rankings of the largest United States corporations by total revenue; it was the world's largest software maker by revenue as of 2016. It is considered one of the Big Five companies in the U.S. information technology industry, along with Amazon, Google (Alphabet), Apple, and Facebook (Meta). Microsoft (the word being a portmanteau of "microcomputer software") was founded by Bill Gates and Paul Allen on April 4, 1975, to develop and sell BASIC interpreters for the Altair 8800. It rose to dominate the personal computer operating system market with MS-DOS in the mid-1980s, followed by Microsoft Windows. The company's 1986 initial public offering (IPO), and subsequent rise in its share price, created three billionaires and an estimated 12,000 millionaires among Microsoft employees. Since the 1990s, it has increasingly diversified from the operating system market and has made a number of corporate acquisitions, their largest being the acquisition of LinkedIn for $26.2 billion in December

BOOKS

Allows searching and browsing any book

Search books and browse your favorite

just enter the search query to obtain the results

Enter To Search *

Azure

Submit

Mastering Microsoft Azure Infrastructure Services

None

Understand, create, deploy, and maintain a public cloud usingMicrosoft Azure Mastering Microsoft Azure Infrastructure Services guidesyou through the process of creating and managing a public cloud andvirtual network using Microsoft Azure. With step-by-stepinstruction and clear explanation, this book equips you with theskills required to provide services both on-premises andoff-premises through full virtualization, providing a deeperunderstanding of Azure's capabilities as an infrastructure service.Each chapter includes online videos that visualize and enhance theconcepts presented in the book, and access to a Windows app thatprovides instant Azure updates and demonstrates the process ofgoing from on-premises to public cloud via Azure. Coverage includesstorage customization, connectivity, virtual networks, backing up,hybrid environments, System Center management, and more, giving youeverything you need to understand, evaluate, deploy, and maintainenvironments that utilize Microsoft Azure. Understand cost, options, and applications of Infrastructure asa Service (IaaS) Enable on- and off-premises connectivity to Azure Customize Azure templates and management processes Exploit key technologies and embrace the hybridenvironment Mastering Microsoft Azure Infrastructure Services is yourtotal solution.

Category: Computers

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Pro PowerShell for Microsoft Azure

None

This book is written for Windows professionals who are familiar with PowerShell and want to learn to build, operate, and administer their Windows workloads in the Microsoft cloud. Pro PowerShell for Microsoft Azure is packed with practical examples and scripts, with easy-to-follow explanations for a wide range of day-to-day needs and essential administration tasks. Author Sherif Talaat begins by explaining the fundamental concepts behind the Microsoft Azure platform and how to get started configuring it through PowerShell. Readers will find out how to

YOUTUBE

Allows searching any video on Youtube

CONVERSION

Conversion of basic units - Length and Mass

Measurement*

● Length ○ Mass

Select

Enter the Number   Yard ⌄   Yard ⌄

13 foot = 4.333333333333333 yard

Convert

FUTURE WORK

1. Creating groups/friends facility.
2. Dictionary search on highlighted texts on any page.
3. Youtube embedded media player on the youtube page.
4. Creating an API for displaying university announcements on the home page.
5. A public profile to users where the user can keep selected data public or available to friends.