CS251 SOFTWARE ENGINEERING 1

COURSE PROJECT INSTRUCTIONS SPRING 2022

Instructions to Students:

This is a group work project. Each group consists of **FIVE to SEVEN students** (group members must be approved by the TA through registration). Each group must develop the idea assigned to them using **Object-Oriented Technologies** & PHP. *Please note that every individual idea (from the provided list) can be assigned to a limited number of teams.*

Project Objectives: The objectives of this project can be summarized in the following:

- Eliciting, Analysing, Validating, Specifying, & Managing the Software Requirements.
- Using Software Engineering Processes and approaches, & UML diagrams in developing *(both designing & implementing)* an Object-Oriented-based application.
- Applying design & architectural patterns.
- Testing.

Submission: Submission is done according to the following schedule:

- **Week 4:** Registering your team.
- **Week 10:** Phase 1 Discussion *(detailed schedule TBA later).*
- **Week 12:** Phase 2 Discussion *(detailed schedule TBA later).*

Assessment: Assessment will be on the reports and code submitted, in addition to discussions with team members. All the team members must contribute to all the phases, and the role of each member must be clearly stated in each report. The Project will be assessed based on the following criteria:

- The complexity is determined by the number of functionalities covered by your project.
- The quality of your documentation.
- The correctness of your analysis and design diagrams.
- Design Quality: using patterns, levels of abstractions, etc.
- Implementation correctness.

Feedback: Feedback, for each group, will be given by the teaching assistants during the submission of each phase. Further details could be provided through discussion during office hours with the teaching assistants.

Academic Integrity: You can only submit your work. Any student suspected of plagiarism will be subject to the procedures set out by the Faculty *(including failing the course entirely)*. Helwan University's policies on academic integrity will be enforced on students who violate University standards of academic integrity. Examples of behavior that is not allowed are:

- Copying all or part of someone else's work and submitting it as your own;
- Giving another student in the class a copy of your work; and
- Copying parts from the internet, textbooks, etc.
- If you have any questions concerning what is allowed, please don't hesitate to discuss them with me.

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COURSE PROJECTS' DESCRIPTIONS (30 IDEAS)

Contents

Important Notes [Read Carefully]

1) The descriptions are indicative and not final, thus you need to do your refinements to these requirements, by adding your assumptions and constraints. You should rely on an existing application that performs functional requirements similar to the ones you're developing. For many of the ideas, I've indicated an application that you might model something similar to.
2) Some of the ideas are well defined and detailed while others are NOT. For those ideas that are not fully detailed, you need to elaborate more and explain in detail how things are working.
3) Finally, feel free to discuss your refinements with your TAs during the labs.
4) In case one (or more) of the functionalities within the application requires an advanced algorithm, just simulate that function using a very basic algorithm.
5) In the design phase, you're expected to design at least 5 functions per team member (that is, a team of 5 members should include at least 25 functions, while a team of 7 members should include at least 35).
6) In the implementation phase, you're expected to implement at least 3 functions per team member (that is, a team of 5 members should implement at least 15 functions, while a team of 7 members should implement at least 21).

1) An Advanced Employee Management Application

Human resources describe the people who work for a company or organization and the department is responsible for managing resources related to employees. A human resource is a single person or employee within your organization. Human resources refer to all of the people you employ. The manual method is used to maintain efficiently the Human resources department schedule of any type of company. In larger organizations, a human resources management system is not only becoming a desire of the company, but it becomes an essential need. This system has mainly two entities; (1) Admin and (2) Employee. The Admin has the authority to add company information, add employee details, manage leaves, manage payroll, and add holidays. Employees can check leaves' statuses, can resign, can view their salary details, and view the holidays' list.

2) A Local Train Ticketing Application

A local train ticketing application is a system for local trains that allows users to book local train tickets and get ticket receipts online. This local train ticketing application provides login rights for normal users and admins. A normal user may log in and get a ticket online, print it, and travel by train. The ticketing process consists of a ticket booking form. The form allows the user to choose his/her source and destination. The source is the station from where the user will be boarding the train. The destination is the station (s)he needs to arrive at. The system's database should be filled with all available stations. It can be modified for any other city as needed. The system also consists of an option to select whether the ticket is for a single journey (one way) or a return ticket and whether the journey will be commenced in first-class or second-class carriages. It also consists of an admin account. The admin may recharge user account balance and check for various journey tickets processed within the system.

3) An Automated Teacher Evaluation Application

Traditionally, teaching performance evaluation is used as a tool to appraise the faculty on how they are doing their job. The automated teacher evaluation application allows rating of the faculty staff based on questions provided by the administration, and also the students can give their comments and feedback on that particular faculty member. In the admin side, the admin can add or delete a faculty member or a student. The admin can add the list of questions to decide the performance of the faculty member. Admins can also rate the faculty member according to a questions list and their performance. A faculty member can view their final ratings (based on the students, co-teachers, and admin ratings). The faculty members can also view any comment or feedback given by their students. Faculty members can rate their co-teachers based on questions provided by the administration. Teaching performance evaluation is a necessary step in ensuring good instruction. Thus, the system should comprise at least 3 major modules: an Administration Module, a Student Module, and a Faculty Member Module.

4) An On-Road Vehicle-Breakdown Assistance Application

This vehicle management application is a fully customized application where a company staff can view each customer order and give a solution to those vehicle's problems. The locating system allows the user/admin to search for mechanics at different locations. The admin handles (and can access) the user's details as well as the mechanic's details. Mechanics are rated and can receive feedback on their services and costs. The admin has the access to allow, block, and view the mechanics. This online mechanic locator reduces a user's work and can easily find the mechanics from various areas, thus saving time and cost. Thus, the system should comprise at least 3 major modules: an Administration Module, a Mechanic Module, and a User Module.

5) A Bug Tracking Application

This defect tracking application helps in tracking software bugs. There are three modules in this tracking system, Administrator, Staff, and Customer. The Administrator can log in to the app and can enter the details of staff members and projects, and view the bugs sent from the customers. The admin can also assign the work to (a) staff member(s), view a bug's case-flow status & details, and send messages to customers using this bug tracking application. A staff member can log in to the site using a username and password. Then he/she can view the bugs assigned to them. (S)he can directly send a solution message to the customer(s), or he/she can assign the bugs to other staff members if the bug is related to them. The user may view a bug's case-flow details with which he/she is involved. The customer registers on the application and logs in to the site using a username and password. Whenever a bug is raised from his/her software, (s)he sends the

bug details to the administrator with a print screen of the bug. He/she may then monitor the bug case-flow details and bug status along with solution details at any time using the ticket number generated during the new bug entry.

6) A Sentiment Analysis for Product Rating Application

This application is an advanced Sentiment Analysis for Rating Products, it detects hidden sentiments in comments and rates the product accordingly. The system uses sentiment analysis methodology to achieve the desired functionality. The registered user will view the product, and the product features, and will be able to comment on the product. The system will analyze the comments of various users and will rank the product. A database of sentiment-based keywords is used along with a positivity or negativity weight (also in the database), and then the user comment is ranked based on these sentiment keywords. That is, comments will be analyzed by comparing the comment with the keywords stored in the database. The System takes comments of various users, and based on each comment, the system will specify whether the product is good or bad (using any form of categorization). Once the user logs on to the system (s)he can view the product and its features. After viewing a product, the user can comment about the product. Users can also view comments written by other users. The role of the admin is to add products to the system and to add keywords to the database. Thus, eventually, the users can easily find suitable products for them.

7) An Opinion Mining for Social Networking Application

This system uses an opinion-mining methodology to achieve the desired functionality. The user will post his views related to some subject (on the application) and other users will view this post and will comment on this post. The System takes comments of various users, and based on their opinion, the system will specify whether the posted topic is good or bad (or can be ranked according to any sort of ranking). A user can change his/her own profile picture and can update his/her status. These changes can be viewed by various users. A database of sentiment-based keywords is used along with a positivity or negativity weight (also stored in the database). Once the user logs on to the system, the user can view his/her own status, and can also view the topics posted by other users. When the user clicks on a particular topic, then (s)he can write his own comment about the topic. The system will then use the database and will match the comment with the keywords within the database, and then will rank the topic. The role of the admin is to add posts and adds keywords to the database. This application can be used by users who like to post a view about some events that have already been held or would like to post about the events that are going to take place in the future. This system is also useful for users who need a review of their new idea, or a review about any particular event.

8) A Basic Weather Forecasting Application [inspired by Various Weather Applications]

Weather forecasting is the application of science and technology to predict the state of the atmosphere for a given location. Ancient weather forecasting methods usually relied on observed patterns of events, also termed pattern recognition. For example, it might be observed that if the sunset was particularly red, the following day often brought fair weather. However, not all of these predictions prove reliable. Here this system will predict the weather based on parameters such as temperature, humidity, and wind. This system is an application with an effective graphical user interface. The user will log in to the system using his/her user ID and password. The user will enter the current temperature, humidity, and wind. The system will use these parameters and will predict the weather from previous data within the database. The role of the admin is to add previous weather data to the database, so that system will calculate the weather based on this data. This weather forecasting system will rely on parameters such as temperature, humidity,

and wind to forecast the weather based on the previous records, thus the prediction will prove reliable to some extent. This system can be used in different domains; Air Traffic Control, Marine, Agriculture, Forestry, Military, Navy, etc.

9) A Railway Tracking and Arrival Time Prediction Application

By using this application, users can get information about train timing; whether a train trip is on time or not, and any other relevant information. In this application, the system will track the train timing; that is, at what time the train departed from a particular station, and then pass on these timing details to another station's system where it will be displayed and used to update the expected time of arrival according to when actually did the train depart from the previous station. If the system found any delays in the train's schedule, it will automatically update the train arrival time at the next station and will update the viewers/users with this information. There is an admin module that enters the details about train trips and their timings/schedule, and these details will be passed on to a server and then fetched by the different systems at the other stations (and these systems will then display the information to the viewers on the platform). The system will also gather all the information of all the trains passing through (or arriving at / departing from) a particular station and will also display that information on a screen. An admin will enter details about a train's departure and its exact time. Other station masters in every station have a login whereby they may update a train's arrival time at their station when it does arrive (and also its exact departure time). The admins will add all information, such as when did a train depart from the station, its expected arrival at the destination, or any delays in the train's schedule, .. etc. This system also publishes real-time train schedule events to multiple clients subscribing to this service through their applications.

10) A Fingerprint-based ATM System [inspired by Various Banking Applications]

Fingerprint-based ATM is an application where the fingerprint of the user is used as authentication. The fingerprint minutiae features are different for each human being so the user can be identified uniquely. Instead of using an ATM card, a Fingerprint-based ATM is safer and more secure. Thus, there is no worry of losing an ATM card and no need to carry an ATM card in your wallet. A user has to use his/her fingerprint to do any banking transactions. The user has to log in using his/her fingerprint and (s)he has to enter the pin code to do further transactions. The user can withdraw money from his/her account. Users can transfer money to various accounts by stating the account number. To withdraw money, a user has to enter the amount (s)he wants to withdraw and has to mention from which account (s)he wants to withdraw (i.e. the saving account, the current account, the gold account, etc.). The user must have an appropriate balance in his/her account to do this later transaction. A user can view the balance available in his/her respective account. The application will also allow the user to view the last transactions.

11) A Fingerprint Voting Application

Fingerprint-based Voting is an application where the user (a voter) is recognized by his fingerprint. Since the fingerprint pattern for each human being is different, the voter can be easily authenticated. The system allows the voter to vote by using his fingerprint. A voter can vote for the candidate only once, the system will not allow the user to vote a second time. The system will allow the admins to add elections, and add the candidates' names and photos (those who are nominated for an election). Admins only have the right to add candidates' names and photos. Admins will register the voter's name by verifying the voter/user through his/her identity proof (and then the admin will register the voter). The candidates added to the system by the admins will be automatically deleted after the completion of an election. Admins have to add the date on which an election is going to end. Once a user has received the user id and password from the admin, the user can log in and vote for a candidate from those who are nominated. The system will allow the user to vote

for only one candidate. The system will allow the user to vote once in a particular election. Admins can add any number of candidates when a new election is announced. Admins can also view an election's result by using the election id. A user can also view an election's result.

12) A Patient Tracker Application

The application aims to help doctors (physicians) to enter/register as well as view a patient's history (along with other patients' details). The system can be installed on a doctor's phone, and it allows a doctor to enter the details of any patient that he/she treats (or supervises his treatment, alone or with other colleagues). The application allows the doctor to insert various data fields regarding a patient; including the patient's name, age, gender, address, ID, medical conditions & diseases, medical history & allergies, medication provided and their doses, date of arrival, cost, etc. The system saves this patient-related data on the phone. The doctor may now view this data and check any details whenever needed. The application allows the doctor to search for a patient by his/her name, admittance date, medical condition, prescribed medication, etc...

13) An Automated Payroll Application with GPS-Tracking and Image-Capturing

This application is a combination of both a web as well as a mobile application, where the user will be using the mobile application, while the admin, as well as the HR, will be working with the web application. This application is meant for fieldwork employees (users). The user will have this application on his phone and when (s)he will log in to the system his/her image (photo) will be captured and his/her GPS location will be sent to the admin, where the admin will view both the image and the GPS location on the web application. After Logging in, the GPS location of the user (i.e., employee) will be tracked automatically by the system and sent to the admin every 5 minutes. When a user logs out of the system, once more the image will be captured as well as the GPS location, and both will be sent to the admin. Thus, this application plays a major role in keeping track of the attendance (as well as the payroll) of fieldwork employees. The role of the admin includes adding new employees by entering their personal details, and providing each employee with an identification number and a password so that (s)he can access the application on his/her phone. An admin (and also an HR personnel) can also view the GPS location of the employee by entering the Employee ID Number as well as a specific date. An admin (and the HR personnel) can check the salary of a particular employee by entering a period and the employee ID. The admin can also view the latitude and longitude of the GPS location sent by an employee. The admin can change the password of an employee. Thus, this application helps the administrative and HR personnel to easily check & adjust the salaries of the employees based on their GPS locations.

14) A Credit Card Fraud Detection Application

The credit card fraud detection application uses the user's behavior and location to check for unusual patterns and to verify his/her identity. These patterns include the user's characteristics such as his/her spending patterns as well as the usual geographic locations. If any unusual pattern is detected, the system requires re-verification or additional verification. The application analyses the user's credit card data for various characteristics. These characteristics include the user's country, the usual spending procedures, etc. Based upon previous data of that user the system recognizes unusual patterns in the payment procedure. So now the system may require the user to log in again, provide additional verification, or even block the user after more than 3 invalid attempts. Thus the core features include storing the previous transactions' patterns for each user and calculating the user's characteristics based on his/her spending pattern, country, and other features. If a deviation is detected (let's say more than 20-30%) in a user's transaction (from the standard pattern of

spending history, operating country, etc.), then the transaction is considered an invalid attempt and the system takes appropriate action(s).

15) An AI Multi-Agent Shopping Application [inspired by Amazon]

An AI (Artificial Intelligence) multiagent shopping application where the system is fed with various products' details. The application allows the user to register and enter his/her details about a particular product. The app records all the details provided by the user and checks for various items that match his/her search criteria. Therefore, the system comes up with a list of items best suited for the user's needs. The system also suggests other related items that the user may like. The system suggests these items which are likely to be bought by the user based on his/her previous requirements. The system handles multiple users at a time and should provide acceptable results. The user should register on the system, and then logs in to the system to check the various products' data online. The multi-agent system guides and supports the user through his/her entire shopping experience and sorts out the products as per user preference. There are multiple product categories, and the user can add the products to the cart. Users may do a custom search in which the application displays the products matching the user's requirements. And also displays related products likely to be bought by the user. The agent retrieves the products as per the user's preferences but leaves the final decision up to the user. After the total bill is calculated, the user can pay online via credit card.

16) A Learning Management System Application

A Learning Management System (LMS) is an online system or software which is used to plan, execute, and assess a specific learning process. In simple words, the software used in eLearning programs that helps in the administration, documentation, tracking, and recording. Learning Management Systems are used to maintain online collaboration over the internet. Colleges and companies use them to deliver online training; corporates use them for training purposes, as well as for maintaining employee records. Some use them to offer courses that provide students access to education, and some others as an online system that staff use to support course delivery and provide online learning and blended learning opportunities for students and employees. The main objective of Learning Management Systems is to enhance the learning process. A Learning Management System not only delivers content, but also handles registering courses, course administration, skill gap analysis, tracking, and reporting. Most LMSs are web-based and are used in various educational institutes and companies to improve classroom teaching, learning methodology, and company records. They are used in various industries and scenarios like in financial services, compliance training, computer-based training, online assessment, collaborative learning, application sharing, and so on. Some LMSs also include a performance management system that encompasses employee appraisal, competency management, and skill gap analysis. Some common features found in the majority of Learning Management Systems include (1) Managing users, courses, roles, and generating reports. (2) Making a course calendar. (3) Messaging, notifications, and Reminders. (4) Exams and Assessments that can handle pre/post-testing. (5) Certification and displaying employees' score(s) and transcript(s). In addition to Multilingual interfaces, Groups, Learning Paths, etc.

17) A Smart Health Prediction Application using Data Mining

It might have happened so many times that someone needs a doctor's help immediately, but they are not available due to some reason. The Health Prediction system is an end-user support and online consultation software. The system allows users to get instant guidance on their health issues through an intelligent health care system online. The system is fed with various symptoms and the disease/illness associated with those systems. The system allows the user to share their

symptoms and issues. It then processes the user's symptoms to check for various illnesses that could be associated with it. Some intelligent data mining techniques are used to guess the most accurate illness that could be associated with a patient's symptoms. If the system is not able to provide suitable results, it informs the user about the type of disease or disorder it feels the user's symptoms are associated with. If the user's symptoms do not exactly match any disease in the database, it shows the disease the user could probably have judging by his/her symptoms. It also contains doctors' addresses, and contacts, along with feedback, and an administrator dashboard for system operations

18) An Application for Online Food & Grocery Delivery Service [Inspired by Talabat]

This online food delivery service operates in multiple countries and cities. It connects customers with their favorite restaurants. It takes just a few taps from the application to place an order through it from your favorite place. The app simply takes a submitted order and sends it to the restaurant through a completely automated process, so the customer doesn't have to deal with all the hassle of ordering, and the app makes sure that the customer receives his/her order on time. The first and foremost thing about the application is that it not only lists on-demand restaurants but also organizes on-demand delivery partners that deliver food items. The app includes lots of features, for instance, the No Cutlery feature that allows the customer to choose not to receive disposable cutlery with the order. And GEM, which is a feature that allows the customer to effortlessly find great deals from restaurants delivering to him/her. With GEM, the customer can save on his/her order and discover restaurants (s)he might not have tried before. GEM also shows the customer offers from restaurants they've ordered from in the past.

19) Prayer Times & Adhan Application [inspired by Muslim Pro]

This Islamic application's main features include accurate prayer times, full audio Quran, Azan (Call for Prayer), Halal restaurants & Mosques guide, the Qibla Compass, the Islamic Hijri calendar, a Zakat calculator, a Daily Inspiration contents, Fasting and Prayer Tracker, a virtual Hajj journey, Popular Verses, Daily Duas (Supplications), .. etc.

20) A Professional Networking Application [inspired by LinkedIn]

This application is a professional networking online system. The user can use it to find the right job or internship, connect and strengthen professional relationships, and learn the skills (s)he needs to succeed in his/her career. A complete profile on this application can help the user connect with opportunities by showcasing his/her unique professional story through experience, skills, and education. The user can also use it to organize offline events, join groups, write articles, post photos and videos, and more. The application offers free, basic membership to anyone who wants to create and maintain a professional profile online. If the user upgrades to a Premium subscription, (s)he will gain further access to additional products and features that include marketing, recruitment, sales, and learning products. Other features in the application include (1) Hide the Connections, (2) Exporting the Connections, (3) Managing Skills & Endorsements, (4) Creating Showcase Pages, (5) Hiding one's Identity when Viewing Profiles, (6) Saving Searches, (7) Adding Media Files to the Profile, (8) Recording the Correct Pronunciation of a User's Name, and many more.

21) A Video Sharing Application [inspired by YouTube]

The application includes functions such as (1) Users can search for and watch videos, (2) A user can create a personal channel, (3) A user can upload videos to his/her channel, (4) A user can Like, Comment on, and share other videos. (5) Users can subscribe/follow other channels and users. (6) Users can create playlists to organize videos and group the videos together.

22) A Caller-Identification Call-blocking Application [inspired by TrueCaller]

An application that has the features of (1) caller-identification, (2) call-blocking, (3) flash-messaging, (4) call-recording, and (5) Chat & Voice by using the Internet. The application requires the users to provide a standard cellular mobile number for registering with the service.

23) An Instant-Messaging and Voice-over-IP Application [inspired by WhatsApp]

An instant messaging (IM) and voice-over-IP (VoIP) application that allows users to (1) send text messages and voice messages, (2) make voice and video calls, and (3) share images, documents, and user locations, and other content. The application requires a cellular mobile telephone number to sign up.

24) A Social Networking Application [inspired by Facebook]

An application that allows users, who sign-up for free profiles, to connect with friends, work colleagues, or people they don't know, online. It allows users to share pictures, music, videos, and articles, as well as their own thoughts and opinions with however many people they like. Users send "friend requests" to people who they may – or may not – know. Once accepted, the two profiles are connected with both users able to see whatever the other person posts. The users can post almost anything to their "timeline", a snapshot of what is happening in their social circle at any given time, and can also enter a private chat with other friends who are online. People with profiles list information about themselves. Whether it be what they work at, where they are studying, ages, or other personal details, many users post lots of information that is easily accessible to their friends and others. On top of this, users can "like" other pages which interest them. For example, if a user is a fan of a public figure (e.g., (Tony Stark, Bruce Wayne, Dr. Stephen Strange, Dr. Amr Ghoneim, etc.) or a Liverpool FC supporter, they can follow the club/public figure by linking up with its page. There, the user can post comments and receive updates, pictures, etc. For ideas on more features, you may check: https://en.wikipedia.org/wiki/List_of_Facebook_features

25) A Microblogging Application [inspired by Twitter]

Microblogging is an online broadcast medium that exists as a specific form of blogging. A micro-blog differs from a traditional blog in that its content is typically smaller in size. Micro-blogs "allow users to exchange small elements of content such as short sentences, individual images, or video links", which may be the major reason for their popularity. These small messages are sometimes called micro posts. Twitter (as an example of a Microblogging & Social Networking Service) is an application on which users post and interact with messages known as "tweets". Registered users can post, like, and retweet tweets, but unregistered users can only read those that are publicly available. Tweets are publicly visible by default, but senders can restrict message delivery to only their followers. Users can mute users they do not wish to interact with, block accounts from viewing their tweets, and remove accounts from their followers' list. Users may subscribe to other users' tweets—this is known as "following" and subscribers are known as "followers". Individual tweets can be forwarded by other users to their own feed, a process known as a "retweet". A "quote tweet" (originally called "retweet with comment") is a feature that allows users to add a comment to their retweet, nesting one tweet in the other. Users can also "like" (formerly "favorite") individual tweets. The counters for "likes", "retweets", and replies appear next to the respective buttons in timelines such as on profile pages and search results. Counters for likes and retweets exist on a tweet's standalone page too. Quote tweets, formerly known as "retweet with comment", have their own counter on their tweet page. For ideas on more features, you may check: https://en.wikipedia.org/wiki/List_of_Twitter_features

26) Online Shopping and Auction Platform [inspired by eBay]

An application with features to improve the user's buying and selling experience. The application will let you access your information, such as purchase history, watch lists, and sales pages. You will also be able to manage your account, browse through a huge inventory, and purchase items from the platform. On the listing page, each item has detailed information about the product. Similarly, with numerous categories and recommendations, selling is easy. The application allows the users to use the phone's camera to quickly scan product bar codes. While shopping in an offline store, this feature comes in handy for price checks and comparisons. If you're interested in selling items, scanning the bar codes will populate listing fields, thereby doing all the hard work. You'll simply have to set the price, auction duration, and postage details. The application sends real-time alerts and notifications, it's easy to track payments, dispatches, and other important information. The application also makes it easy to review products and give feedback to sellers or buyers. The application includes some other features, including My Feed, which lets you discover products based on preferred categories, a section for special deals, and the ability to follow your favorite sellers and searches.

27) Photo and Video Sharing Social-Networking Application [inspired by Instagram]

A social networking application that allows its users to share pictures and videos with their friends. The application allows users to upload media that can be edited with filters and organized by hashtags and geographical tagging. Posts can be shared publicly or with pre-approved followers. Users can browse other users' content by tags and locations and view trending content. Users can like photos and follow other users to add their content to a personal feed. The application also includes messaging features, the ability to include multiple images or videos in a single post, and a 'stories' feature which allows users to post photos and videos to a sequential feed, with each post accessible by others for 24 hours each.

28) A Digital Healthcare Application [inspired by Vezeeta]

This application is a digital healthcare booking platform and practice management software (that is, automated physician, clinic, and hospital bookings, thus making healthcare easily accessible). The application should include reviews, and patients can search, compare, and book the best doctors. Doctors also provide Patients with seamless healthcare experiences through our clinic management software. The application should operate in multiple countries. Users can search by Speciality, Country / City / Area, or name. Also, users can choose their insurance from a list of verified insurance groups.

29) A Multilingual Open Online Encyclopedia [inspired by Wikipedia]

The application is a multilingual open online encyclopedia written and maintained by a community of volunteers through a model of open collaboration, using an editing system. Individual contributors, also called editors, use the application that allows them to create and collaboratively edit pages or entries via a web browser. The app also allows its users to bookmark articles and organize them into lists. Users can also share these lists across different devices. The lists can be sorted, searched, and reorganized offline. The app allows users to customize their Explore feed and choose the items they prefer to see in this section. The application provides users with the option to view their previously searched articles in History (which can save a lot of time in case they forget to bookmark what they were previously reading).

30) An Application that connects Driver-Partners and Riders [inspired by Uber]

This application helps develop and maintain multisided platforms that match consumers looking for rides and independent providers of ride services, as well as with other forms of transportation, including public transit, bikes, and scooters. The

application also connects consumers and restaurants, grocers, and other merchants so they can buy and sell meals, groceries, and other items, then it matches them with independent delivery service providers. Plus, the application connects shippers and carriers in the freight industry. In cities where the application operates, the rider app is used to request a ride. When a nearby driver-partner accepts a request, the app displays an estimated time of arrival for the driver-partner heading to the pickup location. The app notifies the rider when the driver-partner is about to arrive. The app also provides info about the driver-partner with whom the rider will ride, including first name, vehicle type, and license plate number. This info helps the two sides connect at the pickup location. The app is used to enter the preferred destination anytime before or during the ride. If the rider has a preferred route, it's helpful to talk through the directions together. When the rider arrives at the destination and exits the vehicle, the trip ends. The fare is automatically calculated and charged to the payment method that has been linked to the rider's account. In some cities, the app allows the rider to pay his/her fare in cash. This option must be selected before a ride is requested. Immediately after a trip ends, the application will ask the rider to rate the driver from 1 to 5 Stars. Driver-partners are also asked to rate riders. This feedback system is designed to foster a community of respect and accountability for everyone.