North East University Bangladesh

Department of Computer Science and Engineering

Spring 2022

Course Code: CSE 300 Course Title: Project Work 2

**1) Basic Information:**

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| **Group Details** | **Student ID** | **Student Name** |
| 190103020026 | Ehtimam Rashed Chowdhury |
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| 190203020101 | Farzana Rahman |
| **Project Title** | ReachMe – More Than A Social Media | |

**2) User Roles:**

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| **User Types** | **Description** |
| Unregistered User | An unregistered user can’t view or interact with private or privacy selected contents. But he can only view public contents like photos, videos, posts etc. without interaction. Along with that some user only features will be unavailable for him. |
| Registered User | Can access almost all contents and features like creating post, uploading video, uploading photo, Up vote – Down vote and comment on contents, send – receive friend requests, message with other users, report contents if something seems inappropriate to him etc. |
| Verified User | When a registered user meets the criteria of becoming a verified user, he can submit required documents to the authority (Super Admin) for his profile verification. If Super Admin approves the documents, then he becomes an Officially Verified User. Advantage of being a verified user is that, his profile and contents will contain a signature of authentication badge. |
| Moderator | User reported contents are firstly submitted to moderators. Moderators have the privilege to judge user reported contents or any contents of the platform. And if they find any inappropriate thing, they can delete the entire content. If a user keeps posting inappropriate contents, moderator can submit a “Account Restriction Request” to the admin against the user. If a moderator fails to judge a content, he can post a “Judgement Token” of that content to the admin. |
| Admin | An Admin have all privileges of a moderator. Along with that Admins have the additional privilege to delete, edit, or modify part of the user content or the full content if needed. Based on “Account Restriction Request” from moderator, he can also restrict user accounts or delete/ban the user from site. If an admin fails to make decision, he can submit a “Admin Request” about the problem to the Super Admin. Also an admin can create new moderators for the site and promote user contents. |
| Super Admin | Super Admin have all privileges of an admin along with that he can create new admin, moderators for the site. Super Admin’s another most significant role is to verify a registered user account. Verification here does not mean email verification or anything like that. Super Admin can verify user accounts based on their submitted document, if he finds these documents right then he can give the user an “Officially Verified User Badge” and it will be shown on their profile and posts as a signature of authentication. Note: Giving such a verification means the entire site is partially responsible if a verified user posts something inappropriate. |

**3) User Story Planning:**

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| **Task Number** | **User Stories** | **Responsible** | **Deadlines** |
| A-1 | The homepage of the site will contain latest public contents along with a pop up for logging in or registering an account. After logging in, the homepage will show personalized contents for the user. A user can navigate to different type of contents(text, image, video and selling post) using the navigation menu situated on the middle of the homepage header. | Arnob | 23/2/2022 |
| A-2 | An unregistered user can only view public contents and can’t interact with anything in the website. Also a registered user can recover his user account if he forgets his password. | Arnob | 2/3/2022 |
| E-1 | An unregistered user can register for an account with a valid email address. After verifying the email address with the provided link, he will be able to login to the created account. | Ehtimum | 23/2/2022 |
| E-2 | A registered user can update/modify his account information such as email address, username, name, password, profession, date of birth, blood group, address etc. Also he can delete his account if he wants to. | Ehtimum | 2/3/2022 |
| F-1 | A registered user can search for a content with proper keywords from the search bar situated on the upper-left corner of the homepage header. User also can filter search category. | Farzana | 23/2/2022 |
| A-3 | A registered user can post their contents (text, image, video) on the site and it will be visible on their own profile and to the users of his friend list. If the content post’s privacy is public, then it will be visible to all. A registered user can update or delete his post/content. | Arnob | 23/3/2022 |
| F-2 | A registered user can tag his friends and set privacy of his posts. | Farzana | 2/3/2022 |
| A-4 | A registered user can send friend request to another user or can receive friend requests from others. By accepting friend request, they can add each other to their friend list. | Arnob | 6/4/2022 |
| E-3 | A registered user can send text messages to another user when the receiver is in his friend list. | Ehtimum | 23/3/2022 |
| F-3 | A registered user can interact with another user’s content via up vote, down vote, comment etc. | Farzana | 23/3/2022 |
| A-5 | A registered user can create a disaster alert. After being approved by moderators or admins, the alert will be pushed as a notification to all users who lives in the nearest area.  Also a registered user can create a blood seeking post, other users with the required blood group who lives in a specific range to the seeking user, will get an alert notification. | Arnob | 13/4/2022 |
| F-4 | A registered user can share another user’s post on his own timeline. | Farzana | 6/4/2022 |
| E-4 | A registered user can apply for “Official Verified User Badge” if his profile meets minimum criteria and has valid documents. In this case he has to submit the documents to the super admin. | Ehtimum | 6/4/2022 |
| E-5 | A moderator can view user reported contents and delete the content if necessary.  A registered user will get one “Penalty Flag” each time one of his content gets recognized inappropriate by moderators. All the “Penalty Flags” will be added together and be visible to moderators and admins. | Ehtimum | 13/4/2022 |
| F-5 | A moderator can report a user profile to admins for restriction if the user keeps posting inappropriate contents repeatedly. Usually a user profile is reported for restriction if there are more than 3 penalty flags on his profile. A moderator can submit a “Judgement Token” about a user reported content to admin if he fails to judge the content | Farzana | 13/4/2022 |
| E-6 | An admin has all privileges of a moderator. A super admin has all privileges of an admin. Also An admin can appoint new moderators to the site and Super admin can appoint new admins to the site. | Ehtimum | 27/4/2022 |
| A-6 | There will be a system that can automatically check the user content for potential vulgar or bad words. If the automatic word check founds any issue, then the system will allow the admin to modify the content partially. Otherwise no one will be able to modify user content other than the owner (user). | Arnob | 27/4/2022 |
| F-6 | An admin can restrict or ban/delete a user account based on moderator report if necessary. | Farzana | 27/4/2022 |
| F-7 | An admin can submit an “Admin Request” to the super admin if he fails to make any decision about something. | Farzana | 11/5/2022 |
| A-7 | A super admin can verify a user account based on his submitted documents. After verification, the user will be given a “Official Verified User Badge” by the super admin. | Arnob | 11/5/2022 |
| E-7 | All moderators, admins and super admin will have an admin panel from where they can manage contents and other things of the site according to their permission level. | Ehtimum | 11/5/2022 |
| A-8 | There will be a system of selling products and a page called marketplace viewable from the homepage top middle navigation bar. This page will contain all selling type posts along with their price tag and specification. The user who is selling the product, will be able to promote his selling post on the front page of the site via a promotional system. A promoted post will be shown on the homepage’s promotional posts section. After selling the product, the user can either delete or enlist the selling post as sold. | Arnob | 25/5/2022 |

**4) The Product Backlog:**

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| **Story Number** | **User Story** | **Acceptance Tests** |
| A-1 | The homepage of the site will contain latest public contents along with a pop up for logging in or registering an account. After logging in, the homepage will show personalized contents for the user. A user can navigate to different type of contents(text, image, video and selling post) using the navigation menu situated on the middle of the homepage header. | 1. Accessing registered user only links (fail)  2. Filter through different type of contents using navigation bar (pass) |
| A-2 | An unregistered user can only view public contents and can’t interact with anything in the website. Also a registered user can recover his user account if he forgets his password. | 1. Viewing private content (fail)  2. Up vote, down vote, comment on content (fail)  3. Search public content (pass) |
| E-1 | An unregistered user can register for an account with a valid email address. After verifying the email address with the provided link, he will be able to login to the created account. | 1. Registering for new account with unique email and personal information (pass)  2. Registering new account with duplicate email and information(fail)  3. Log in to registered account that is not verified by the verification link sent to email (fail)  4. Log in to an email verified account with correct credentials (pass)  5. SQL injection (fail)  6. Log in with wrong credentials (fail) |
| E-2 | A registered user can update/modify his account information such as email address, username, name, password, profession, date of birth, blood group, address etc. Also he can delete his account if he wants to. | 1. Put other user’s email address & username or duplicate email address while updating (fail)  2. Delete own account with correct username and password (pass)  3. Delete own account with wrong username and password (fail) |
| F-1 | A registered user can search for a content with proper keywords from the search bar situated on the upper-left corner of the homepage header. User also can filter search category. | 1. SQL injection (fail)  2. Search private content as an unregistered user (fail) |
| A-3 | A registered user can post their contents (text, image, video) on the site and it will be visible on their own profile and to the users of his friend list. If the content post’s privacy is public, then it will be visible to all. A registered user can update or delete his post/content. | 1. Posting various type of contents by selecting proper content type (pass)  2. Posting various type of contents by selecting wrong content type (fail) |
| F-2 | A registered user can tag his friends and set privacy of his posts. | 1. Tag users outside friend list (fail) |
| A-4 | A registered user can send friend request to another user or can receive friend requests from others. By accepting friend request, they can add each other to their friend list. | 1. Sending friend request (pass)  2. Accepting friend request (pass)  3. Sending friend request to already added users (fail) |
| E-3 | A registered user can send text messages to another user when the receiver is in his friend list. | 1. Send text message to user’s outside friend list (fail)  2. Send text message to user’s inside friend list (pass) |
| F-3 | A registered user can interact with another user’s content via up vote, down vote, comment etc. | 1. Up voting or Down voting multiple times in a single content (fail)  2. Commenting on public post without being logged in (fail)  3. SQL injection (fail) |
| A-5 | A registered user can create a disaster alert. After being approved by moderators or admins, the alert will be pushed as a notification to all users who lives in the nearest area.  Also a registered user can create a blood seeking post, other users with the required blood group who lives in a specific range to the seeking user, will get an alert notification. | 1. SQL injection (fail) |
| F-4 | A registered user can share another user’s post on his own timeline. | 1. Share private posts of other users without being in their friend list (fail) |
| E-4 | A registered user can apply for “Official Verified User Badge” if his profile meets minimum criteria and has valid documents. In this case he has to submit the documents to the super admin. | 1. Trying to apply without meeting minimum criteria (fail)  2. Submitting other type of files than documents (fail)  3. Submitting proper documents with meeting minimum criteria (pass) |
| E-5 | A moderator can view user reported contents and delete the content if necessary.  A registered user will get one “Penalty Flag” each time one of his content gets recognized inappropriate by moderators. All the “Penalty Flags” will be added together and be visible to moderators and admins. | 1. Editing content partially (fail)  2. Deleting content if it violates the site rules (pass) |
| F-5 | A moderator can report a user profile to admins for restriction if the user keeps posting inappropriate contents repeatedly. Usually a user profile is reported for restriction if there are more than 3 penalty flags on his profile. A moderator can submit a “Judgement Token” about a user reported content to admin if he fails to judge the content. |  |
| E-6 | An admin has all privileges of a moderator. A super admin has all privileges of an admin. Also An admin can appoint new moderators to the site and Super admin can appoint new admins to the site. | 1. Creating new admin accounts (pass)  2. Creating new moderator accounts (pass) |
| A-6 | There will be a system that can automatically check the user content for potential vulgar or bad words. If the automatic word check founds any issue, then the system will allow the admin to modify the content partially. Otherwise no one will be able to modify user content other than the owner (user). | 1. Modify post without system approval (fail)  2. Modify post with system approval (pass) |
| F-6 | An admin can restrict or ban/delete a user account based on moderator report if necessary. | 1. Deleting user account (pass) |
| F-7 | An admin can submit an “Admin Request” to the super admin if he fails to make any decision about something. | 1. Submitting a request (pass) |
| A-7 | A super admin can verify a user account based on his submitted documents. After verification, the user will be given a “Official Verified User Badge” by the super admin. | 1. Approving or rejecting verification (pass) |
| E-7 | All moderators, admins and super admin will have an admin panel from where they can manage contents and other things of the site according to their permission level. | 1. Managing site’s contents (pass) |
| A-8 | There will be a system of selling products and a page called marketplace viewable from the homepage top middle navigation bar. This page will contain all selling type posts along with their price tag and specification. The user who is selling the product, will be able to promote his selling post on the front page of the site via a promotional system. A promoted post will be shown on the homepage’s promotional posts section. After selling the product, the user can either delete or enlist the selling post as sold. | 1. Posting a selling post (pass)  2. SQL injection (fail)  3. Promoting a selling post (pass)  4. Enlisting a product as sold (pass) |

**5) The Sprint Backlog:**

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| **Story Number** | **User Story** | **Sprint Items** |
| A-1 | The homepage of the site will contain latest public contents along with a pop up for logging in or registering an account. After logging in, the homepage will show personalized contents for the user. A user can navigate to different type of contents(text, image, video and selling post) using the navigation menu situated on the middle of the homepage header. | Create a search bar on the top-left of the homepage. |
| Create navigation tabs on the top middle of homepage that will allow users to navigate through different types of contents on the homepage. There are 5 type of contents available, they are all type, text type, image type, video type and selling post type. |
| Create profile shortcut, user menu, message, notification and logout shortcut buttons on the top-right of the homepage. |
| Divide the homepage body into 3 vertical sub sections. The first(left) section contains promotional contents of the site. The middle section contains user’s personalized contents and the right section contains notification/alert type contents. |
| Show username “Guest” on profile shortcut of homepage. |
| A-2 | An unregistered user can only view public contents and can’t interact with anything in the website. Also a user can recover his user account if he forgets his password. | Create a redirection script that will send the unregistered user to a “register or login” page if he tries to interact with any content. |
| Create a script which filters homepage posts according to their privacy. Public posts are visible to everyone and friends only posts are visible to only the users who are in the friend list of the post author. |
| Create an account recovery page from where a user can find his account with only username or email address without being logged in. |
| Create a script that sends recovery email and receives the recovery link and allows user to reset the password. |
| Create a profile page where users can view their own profile and maintain it. [Unrelated] |
| E-1 | An unregistered user can register for an account with a valid email address. After verifying the email address with the provided link, he will be able to login to the created account. | Clicking profile shortcut will redirect to another page containing two options – Login or Register. |
| Clicking login option will redirect to the login page. |
| Clicking register option will redirect to the registration page. Create a script to generate a unique verification link which will be sent via email to the user’s email address that he used to register account. Clicking the verification link will activate his account. |
| E-2 | A registered user can update/modify his account information such as email address, username, name, password, profession, date of birth, blood group, address etc. Also he can delete his account if he wants to. | After logging in, user will have 2 options on the user menu. One is for Updating the profile. Clicking that option will lead to a profile update page. |
| Another option will be for deleting the account permanently. Username and password is required to delete the account permanently. |
| Create a page from where user can update his email address, changing a email address requires verification code from both old email and new email. |
| Create a page from where user can change his old password. Changing password also requires a verification code from the account’s email address. |
| Create a button from where user can update his profile picture. |
| F-1 | A registered user can search for a content with proper keywords from the search bar situated on the upper-left corner of the homepage header. User also can filter search category. | Searching with a keyword will show two types of results. One is the search results list of contents that contains the certain search string/keyword. |
| Create a dropdown radio button to select/filter through various search category. |
| Another is the list of profiles whose First Name or Last Name contains the searched keyword. |
| A-3 | A registered user can post their contents (text, image, video) on the site and it will be visible on their own profile and to the users of his friend list. If the content post’s privacy is public, then it will be visible to all. A registered user can update or delete his post/content. | Create a system from where user can select his content category and add media files (if selected) to the post/content. |
| Create a file handling system which will store and maintain user uploaded files(image or video). |
| Create a page from where user can update/edit or delete his content. |
| F-2 | A registered user can tag his friends and set privacy of his posts. | Create a page from where users can tag people from their friend list to their post. |
| Create an option that will allow user to set privacy(public or friends only) to their each content separately. |
| Create an option from where users can view tagged in profiles of a post. |
| A-4 | A registered user can send friend request to another user or can receive friend requests from others. By accepting friend request, they can add each other to their friend list. | Crate a system so that users can send and receive friend requests from other users. |
| Create a system that will allow a user to accept or delete a friend request that he received. Accepting the request will add the user to his friend list. |
| E-3 | A registered user can send text messages to another user when the receiver is in his friend list. | Create a text messaging system so that users within friend list can send texts to each other privately. |
| Create a script that will refresh the inbox when the user receives a new message. |
| F-3 | A registered user can interact with another user’s content via up vote, down vote, comment etc. | Create an up vote – down vote ranking system which will be used to count & show the total number of up vote and down vote on the content. |
| Create a comment system where can users can post their comment on a content. |
| A-5 | A registered user can create a disaster alert. After being approved by moderators or admins, the alert will be pushed as a notification to all users who lives in the nearest area.  Also a registered user can create a blood seeking post, other users with the required blood group who lives in a specific range to the seeking user, will get an alert notification. | Create a disaster or emergency alert system that will push notification to every users who have nearby or similar address. |
| Create a system that will hold the alert post to be approved by an admin or moderator. After approval the script will push it as an alert to all users. |
| Create a script that will send an alert to all users who have the same blood group and lives nearby. |
| F-4 | A registered user can share another user’s post on his own timeline. | Create a system that allows an user to share another user’s content/post to his own timeline. |
| E-4 | A registered user can apply for “Official Verified User Badge” if his profile meets minimum criteria and has valid documents. In this case he has to submit the documents to the super admin. | Create a system to submit documents directly to the super admin from users when they meet the minimum criteria to apply for a verified user badge. |
| E-5 | A moderator can view user reported contents and delete the content if necessary.  A registered user will get one “Penalty Flag” each time one of his content gets recognized inappropriate by moderators. All the “Penalty Flags” will be added together and be visible to moderators and admins. | Create a script that counts penalty flags of a user and show the flag count to the moderators or admins. |
| Create a moderator panel from where a moderator can see a list of user reported content and delete or keep them. |
| F-5 | A moderator can report a user profile to admins for restriction if the user keeps posting inappropriate contents repeatedly. Usually a user profile is reported for restriction if there are more than 3 penalty flags on his profile. A moderator can submit a “Judgement Token” about a user reported content to admin if he fails to judge the content. | Create a button so that a moderator can report a user to admins for restricting or ban his account. |
| Create a button by which a moderator can pass the user reported content to admins for judgement if he fails to do so |
| E-6 | An admin has all privileges of a moderator. A super admin has all privileges of an admin. Also An admin can appoint new moderators to the site and Super admin can appoint new admins to the site. | Create a script that adds all moderator permissions to the admins and all admin permissions to super admin by making necessary changes to the database. |
| Create a page that allows an admin to create new moderator accounts and allows a super admin to create new admin accounts. |
| A-6 | There will be a system that can automatically check the user content for potential vulgar or bad words. If the automatic word check founds any issue, then the system will allow the admin to modify the content partially. Otherwise no one will be able to modify user content other than the owner (user). | Create script that checks the user content for vulgar or bad words and count them. This script will use a list of vulgar or bad words from database to perform this operation. |
| Create a page that allows admin to partially modify or censor the vulgar word of the user content if the automated word check system allows it. |
| F-6 | An admin can restrict or ban/delete a user account based on moderator report if necessary. | Create a page by which an admin can delete a user account and all his contents. |
| F-7 | An admin can submit an “Admin Request” to the super admin if he fails to make any decision about something. | Create a script that allows an admin to send an issue to the super admin for judgement or decision making privately. |
| A-7 | A super admin can verify a user account based on his submitted documents. After verification, the user will be given a “Official Verified User Badge” by the super admin. | Create a system from where super admin can see a list of pending verification requests from users. |
| Create a page that allows super admin to view the submitted documents and profile statistics of a verification requested user. Super admin can also approve or reject his application from the same page. |
| E-7 | All moderators, admins and super admin will have an admin panel from where they can manage contents and other things of the site according to their permission level. | Create an admin panel page and a script that controls the permissions to use options on the admin panel page of moderators, admins and super admin according to their permission level. |
| A-8 | There will be a system of selling products and a page called marketplace viewable from the homepage top middle navigation bar. This page will contain all selling type posts along with their price tag and specification. The user who is selling the product, will be able to promote his selling post on the front page of the site via a promotional system. A promoted post will be shown on the homepage’s promotional posts section. After selling the product, the user can either delete or enlist the selling post as sold. | Create a promotional system that will allow the user to promote his selling post. The promotion must be approved by the admin. |
| Create a script that keeps a countdown timer for each promoted post. And after countdown for a promoted post ends, takes down the post from the promoted section. |