**The KAKs**

Creators

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**Introduction:**

For the IT 350 Final Project which is creating a Social Network for USNA, we the members of the Team-3 created “***MidFeed.”***, the most innovative social networking website which allows the Navy community to share and communicate personal and professional updates with each other in real time. This attractive and user friendly social networking site will meet the user’s demand from all Navy communities. Starting with Midshipmen, the USNA faculty, all navy members and naval academy family will now get one step closer to maintain good communication with each other through technology despite of their very busy life style.

**Midfeed and its Specialty:**

Midfeed comes with very easy and user friendly features. First of all, it has a very nice and attractive looking “Welcome Page” with a nice touch of most updated CSS design. It has a nice and soothing appearance for the user which provides an easy Sign up and Login options. Its presentation of different quotes on every reload gives it a dynamic characteristic and feedback upon completing each action gives a user a perfect idea about how to navigate through the website. If a member is already signed up he can easily login by typing his username or email address. A new user can easily navigate through all the pages which are in public area without being logged in which are Welcome page, Contact page, Search page, Signup page, User Profile page, and List of Member page. So a new user who is not signed up can see the list of all members, their profile and can search any keyword and get back all the statuses containing that keyword. Clicking on Sign Up on the top left corner of the page will take a user to the sign up page. The sign up page is very innovative and gives user a lot of options supported with feedback. A user can choose between the choices of Midshipmen and faculty and the sign up page will provide appropriate feedbacks. One nice feature of this page is that it checks the email field for valid e-mail (valid alpha for Midshipmen) and password field and changes its color between RED and GREEN depending on validity of input. Upon successful sign up it gives a greeting to the user and redirects to login page for the user to login with his new Username and commence the use of the site as a member. For any problem regarding the site or just to inquiry about the site a user can easily find the contact information for the authors (including pictures) of the site and their short biography.

The innovation and extra credits performed on this social networking site does not end here. We met “all” the necessary requirements for the project and accomplished more extra credits successfully. For an easier understanding following is a list with description of all innovative features and extra credits performed.

Innovative Features and Extra Credit:

1. Photo upload with a Thumbnail: Each user can upload their preferable profile picture upon log in. The picture can be uploaded by clicking the “Edit profile” button. It checks for a valid file name to ensure the security of the site. Other than that any type of valid picture format is supported. It also creates a thumbnail sized version upon upload, and shows that with each status post on member’s feeds.
2. Update profile: This is an extra credit for us (as we are teams of 3). Members can edit/update their personal biographical information.
3. Text-area word count: The number of characters for the status posting is limited to 140. The extra credit on this is that it has a counter at the bottom of the text area section which let the user know the number of characters left to use.
4. View profile: This button on the profile page enables the user to see the information they provided during sign up. E.g. for a midshipmen it shows the Username, Alpha, Class and Company.
5. Friends List and “About me”: On the profile page the friends list is automatically visible (without clicking the “Friends” button) and there is an area “About me” where the user and other members can see their Bio and get to know each other before adding them as a friend.
6. Friend added notification: When a member adds a new friend the status feed contains a notification that the user is now friend with the other.
7. Status with pictures: Each status is represented with user pictures along with their name.
8. Delete Status: User can go back and delete any status they have posted.
9. Number of Statuses per page: The status feed shows at most 50 statuses per page to make the status feed web-page efficient and fast. But user can still search and find all old statuses.
10. Links from status to profile: As same as many other social networking sites user can simply click on a member’s status and visit their profile. This makes navigation on the site easier for a user.

**Project Roles:**

As a team of three members we had three major roles to play. They are the following,

1. Team Lead: Midn 2/C Alam
2. Appearance Manager: Midn 2/C Barabin
3. Quality Control Manager: Midn 2/C Kim

As the name of our team KAK represents all three of our names it also represents the team work, collaboration and hard works from each of us.

Midn Barabin has strongly supported his role as “Appearance manager” and lot more. He basically gave the whole project a decent and attractive looks which to say that without him our website will not look as pretty as it is now. He provided a consistent and attractive look across the whole site. Moreover, he very efficiently accomplished all necessary usability testing, design and human-interaction. He supported the team beyond his role requirements and took part building pages for the site to give them totally different and nicer look and added innovative options and features on them. To name the pages he had built or helped to build will be the majority of the whole project.

Midn Kim played another very strong role as the “Quality Control Manager”. He ensured that the basic skeleton for each page and the structure for each file have been laid out perfectly. He was the pioneer to build the skeleton figures for most pages. He tested all the code skeletons for errors and security and successfully laid out the basics for the important pages like Search, Sign up, Posting Status Update, Statistics page, Login/Logout and helped very efficiently to build other pages. Kim as well put a lot of effort outside his role requirements and helped to build a final efficient website and took part building pages for the site to make them a quality creation and immune to malicious user attack.

Midn Alam which is me played my role as the team leader. First of all, I tried to ensure that we have a good communication among us and all the works are divided fairly. I tried to help the team at whatever extent they needed including accomplishing project milestones, papers, presentations etc. I also helped building the skeletons of the projects to complete the project milestones on time and laid out the system description for the site. I helped and collaborated to build pages and define topics such as Add Friends, making user files, Contact pages, Login/Logout, Sign up, Status update etc. with Midn Kim. I tried to enforce that our project fills all the requirements and accomplishes a good number of extra credits which includes functionality, design and innovation etc.

**Username and Password:**

Admin User:

* Username: ***admin***
* Password: ***admin***

Non- admin User:

* Username: ***Alam***
* Password: ***Dijkstra***
* Username: ***kawika***
* Password: ***barabin***
* Username: ***jonkim***
* Password: ***123***

**Implementations:**

Design and HCI: The most designs for the site were created by CSS and some other using Java-script and HTML5. All html pages are actually type of .shtml which enabled us to use our Navigation bar and helped to give the site a constant look. Our directory has a folder called “asset” which basically holds all the files needed for styling. “ColorTheme” and “css” holds all necessary files to meet the user’s satisfaction. Each user also has their style.css in their “css” folder. According to users wish different files get copied from “asset” into the “css” folder of that user and makes appropriate changes. To provide a standard HCI we used java-script to provide feed-back when appropriate. Other than feedback we color coded the validation for sign up (as describe earlier) and noted various remarks which will guide the user appropriately for an easy navigation through the site.

Accessibility and Affordance: Giving various options during sign up and later on editing profile user will experience a great affordance. They can change their profile picture to any format they want, change their bio at any time and navigate friends from the status page and so on.

**System-Description:**

As described earlier we used HTML5 and CSS for all of our design and web pages, Java-script for client side functionality and error checking and Perl for server-side. The following is a brief description of each major part of our system.

1. Storing/editing File: We have a single user.txt which lists all current members, their username and password. This file is only used for keeping track of all the members of the site and handles login by verifying passwords. We do not store biography and other information (first name, last name, company, class etc.) in user.txt rather we take necessary information from it and create user’s individual biography.txt, information.txt and so on. The following files call users.txt to perform different checks and functionality and provide an image of the process of file handling and storing data.

* login.pl: It mainly checks if the user's name and password match. Considers the special case for admin and creates an authorization code for the user that allows them to navigate through the user's site.
* members.pl: It opens users.txt to show all listed user on the site.
* signup.pl: It takes all the information regarding a user, opens up users.txt to check repetition and creates individual files and directory to store their information (information.txt). It also provides data to create biography.txt where user’s bio is stored.

2. Storing Status Update: We have a separate status file for each user which stores their individual status. Each status is stored with a timestamp to make sort easy and append to a new line for new status to make reading easy.

* status.pl: It uses “friends.txt” to get the list of all friends read their information and status to create the status feed page for the user.
* StatusUpdate.pl: It uses user’s “status.txt” to update users any new status.

3. Personalize Page: As mentioned before we have stored members status in their individual status.txt then we read each friend’s status file one by one and stored them in large array. Then we used the sort method provided by Perl to sort them by time stump.

4. Managing Users Page: We have stored the total list of users in “users.txt”. So for deleting (admin only) a particular user we delete the Username from users.txt and also from all of his friends lists.

5. Admin: We created the admin user by defining the username “admin” which is reserved and not available for signing up (with username admin). So for admin the author can simply use the username and designated password to modify the user. We also created a different web page for admin only (admin.shtml/admin.pl) for easier implementation and execution of admin functionality.

6. Searching Status: With a given keyword to search we open the “users.txt” and start with a user and checking his all listed statuses. If a match has been found we gather all necessary information including time stump and show found results with matches. The whole process loops through till we have searched all users.

7. Users Authorization Code: We create an authorization code for each user upon log in which enables the user to freely navigate through the web site without providing authentication every time.

**Conclusion:**

“***MidFeed***” is a creation to enhance social networking for USNA friends and family through technology. The main attraction of ***MidFeed*** is that it is very user friendly, simple, smart and a nice friend to its members. Primary goal and aim of ***MidFeed*** was built upon thinking general users ability to use web and we tried our best to present to the users the most enjoyment in a very simple way. User’s enjoyment and happiness is our compliment.