Team: Riley Johnson, Vinnan Muralikrishnan
Travis Fox, Regina Van Driel

Step 1:

Contents session will contain these items in this order

News : This is shown in the first page and lists the most trending news
Search : We can use this to search for news of our interest
About: Here we speak about our website
Dark Theme : If somebody needs to have a dark theme to read news, they can click this
Login : Premium Members will login to their accounts here

Topic commands which are included are:

Move and Delete but these are restricted to premium users only.
The How-to include:
How to personalize news feed
How to sign up for a premium account

The five terms or phrases related to our system are:

Auto Backups:
    Our website backs up all data at 2:30 am every day. This can be used as a backup incase our website is attacked.
Secure Payments:
    Our premium users pay us through a 128-bit SSL payment which is extremely safe.
Report Bugs Button:
    Users who find any kinds of bugs should feel free to click here and report their error.
Top news:
    These are the news feed which are most liked by our users and are currently trending
24*7 Service:
    Our website is always up and running 24*7. Although you will be notified in advance incase of any maintenance activity.

Step 2:

Test Plan:

System Side:

1. Date Attribute:
    a. Give a date attribute 2 dates.
    b. Give a news slot 2 seperate news links
2. Backup:
    a. Update system during a backup
    b. Access information during a backup
3. Subscriber:
    a. Give subscriber status to admin
    b. Give basic status to subscriber
4. Private Information:
    a. Access Credit Card info
    b. Access private information
        i. Birthdays
        ii. Addresses
5. Site
    a. Overlap multiple links
    b. Place container over search buttons

User Side:

1. Search
    a. Try and search for articles specifically outside of distance range
    b. Make distance range 0 and see what happens
    c. Search for arbitrary symbols:
        i. Þ
        ii. Γ
        iii. Σ
        iv. É
        v. ᅲ
    d. Search for an article "Gun Control" with "Food" as the subject
2. Articles
    a. Ctrl select multiple articles and hit enter, see what happens
    b. Ctrl select both thumbs up and thumbs down for voting
    c. New tab multiple articles and see which breaks first; our servers or our web browser.
3. Servers

      a. Set up zombie machines and click on as many articles as each system can click. Test server load.
      b. Try and access site during an auto backup time.
4. User Accounts
      a. Spoof an admin account using SQL Inject
      b. Spoof a subscriber account using SQL Inject
      c. Gain control of User List using SQL Inject
      d. Create Admin account using SQL Inject
      e. Give user subscriber status using SQL Inject
5. General
      a. Gain full control of site using SQL Inject
      b. Backup site, then try to delete site using SQL Inject

Step 3:

Conversion Strategy:

       Our overarching strategy for conversion is simple, the user experience of the platform will be so appealing to existing news consumers that it will make the experience of using any other news platform pale in comparison. As a result of creating a platform that competes with existing solutions, we will be leveraging a direct conversion that revolves around converting users from their existing news platforms to users of shortstop.news. It would not make sense for us to try and compete with the existing platforms while the users try out our platform. Therefore, an abrupt cutover is absolutely necessary to have users stay on shortstop.news once they try it for the first time. Thus, it is necessary that we implement strategies for direct conversion that ensure that their first time enjoying the platform marks the end of using any other competitor.

       One of the main strategies will be enticing users to switch from their existing news platforms of choice by going to where they are and seamlessly bringing them over to our platform. That is to say that we will go to social media, where they may already be either getting news or using the platforms for leisure. We see this as an effective means because it relies very little on users finding our platform on their own by seeking it out. We make it simple for potential future users to appreciate the value in the platform by showing it to them directly without having to have them come to the platform directly. Additionally, by having authentication through the social media platforms that the users see our news on, we make transitioning from seeing the posts on social media to seeing and voting on the news on our platform trivial as they essentially have accounts to vote on from the get-go.

       Related to the last strategy, is advertising on the potential user's social media platforms of choice, as well as other platforms that may bring the users to the platform. The social media accounts for shortstop.news on those websites will do no good if there are no users to see the content. There needs to be a set of users for organic growth on those platforms to happen. This means paying for advertising on Facebook, LinkedIn, Twitter, Instagram, amongst others. Which will, in turn, allow the users to potentially follow the pages and perhaps come to the core platform. Alternatively, advertising on search engines such as Bing and Google will allow other users to come directly to the platform, and then find many the social media accounts from there to follow and

increase in the user-base of those accounts. Advertising will play a smaller role in the long run, but will clearly play a large role in the short run to get the ball rolling on the organic growth of the social media accounts.

The most important strategy of all is nailing user experience on shortstop.news. First impressions are everything, if a user doesn't have a great first impression, there may not be an opportunity for a second. Therefore, as part of the conversion process, we plan to institute rigorous user experience testing before rolling out any of the other strategies. That's not to say that this strategy will take a long time to fully complete, we understand the importance of getting feedback from core users. However, for us to get those core users in the first place, it is imperative that we reach a threshold in user experience that we retain enough core users to make a positive impact on the entire life of the platform through their feedback.

All in all, our conversion strategy is very different than conventional software conversion strategies because our platform differs greatly from the software which would be targeted towards businesses or internally in a business. A direct conversion strategy is the only one possible in our case because the users for our platform exist on other news platforms which we do not already operate. Therefore, we see the need to treat users who would be using the platform as potential users rather than a given as would be with most other conversion strategies. As a result, we have to find and convince the users that our platform is worth immediately switching over to from their existing news platform of choice. This is why we put such a heavy focus on reaching out to users so that they can experience the platform for the first time. Equally, we stress that it is of the utmost importance that we take steps to not only bring users to the platform but make sure their experience is so good that we keep them there. A direct conversion strategy of this nature is perhaps the only way the platform will see success in having the users transition smoothly from the platforms that they already use to shortstop.news.

Step 4:

System Support:

Once we have installed the system, we will focus on helping users to use our system. We will do this by remaining available for questions from users through email. Once we receive an email, we can create a problem report and track the issue and how we fix that problem. Because we are completely based online, some other thinks that we can do to help users have better interactions with our site is to have a *Frequently Asked Questions* that can help the user to do task or answers the questions they may have themselves. As time goes on, we could continue to add questions with answers to that page if we find that there are questions getting asked repeatedly.

System Maintenance:

System maintenance will be very important as well for keeping our system up to date and refined. More money will be allocated for maintenance because the system needs to evolve over time as problems arise and will need to be solved. The project manager will be responsible for the system maintenance. This means that any change at all will need to go through and be approved by the project manager, including: potential changes, priority, and changed systems. The changes can be smaller or larger but they are all important. Some changes include things like problem reports, change requests, software or networking changes, committee changes and other things as well. All change requests are prioritized after the feasibility, cost, and benefits are assessed to determine what is most important to do first. After the project manager, the systems analyst is the one who will do the analysis and could reach out to users to really determine the issue before they fix the problem. Overall our project manager need must be the most reliable person on the team to handle this work load to the best of their ability once the project is installed and the system is being used.

Project Assessment:

Project Team Assessment:

A. Project Lead/ Manager: Regina Van Driel
   a. Everything went smoothly.
   b. Made sure deadlines were met.

B. Programmer / Developer: Vinnan Muralikrishnan
   a. Met deadlines everytime.
   b. Made excellent improvement suggestions.

C. Systems Analyst / Quality Assurance: Travis Fox
   a. Broke the system according to plan.
   b. Gave proper advice on how to fix the issues.
   c. Worked well with Programmer on fixing SQL vulnerabilities.

D. Systems Lead / PR / Marketing: Riley Johnson
   a. Created excellent "action plans".
   b. Worked with Project Lead on meeting deadlines.
   c. Marketed Shortstop News through social media well.

E. All members performed their duties as required.
   a. No further improvement necessary.

System Assessment:

A. News
   a. Delivered News accurately.
   b. Updated constantly as planned.
   c. Overall:
      i. Delivered to the users' criteria and therefore completed the goal
      ii. Voting system needs improvement.
         1. Each user has access to "upvote" or "downvote" articles multiple times versus only once as planned.
      iii. Rating: 8/10 (no significant improvement needed)

B. User Accounts
   a. Easily set up
   b. Secured by 128 bit encryption
   c. Overall:
      i. Handled by third party via OAuth2, as platform grows it may be worth transitioning existing accounts away from reliance on third parties.
      ii. Raing: 9/10 (no significant improvement needed)
C. Search Utility
   a. Basic search works well
   b. Overall:
      i. Live searching with article related to query. Goal met.
      ii. Advanced search needs more options.
      iii. Rating: 6/10 (adjustments need to be made)
D. Server Backups
   a. Work as planned
   b. GUI set-up well on admin side.
   c. Overall:
      i. Achieves goal of maintaining data integrity in case of loss.
      ii. May need to expand as breadth of data grows.
      iii. Rating: 9/10 (no significant improvement needed)
E. Security
   a. Uses 128-bit encryption on all transactions
   b. Search bars and user login forms secured against SQL injection
   c. Overall:
      i. Goals met for now. Attack vectors will continue to increase and therefore we will need to remain vigilant in the future.
      ii. Rating: 8/10 (no significant improvement needed, at this time)