LineDriveBetting - Phase 3 Report

Team: Indigo

Github Repository: https://github.com/ArmanKhondker/EE-461L-LineDriveBetting

Team Google Drive: https://drive.google.com/drive/u/1/folders/0AF2MKdo4mjX9Uk9PVA

Project Lead: Josh Papermaster

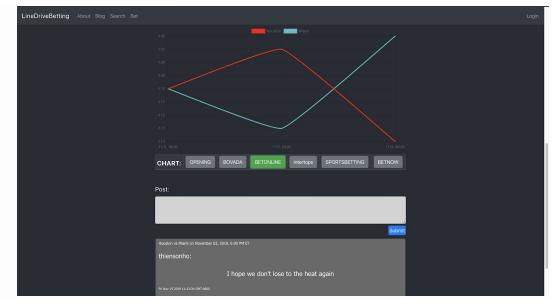
Website URL: https://www.linedrivebetting.com

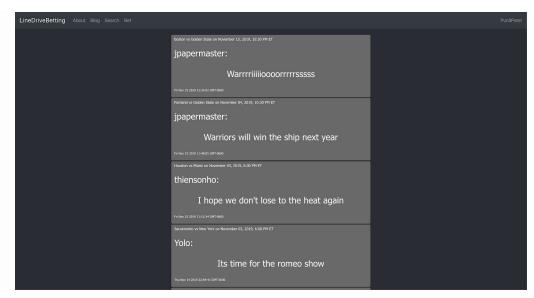
<u>Name</u>	Email	<u>Github</u>
Arman Khondker	armankhondker@utexas.edu	https://github.com/armankhondker
Punit Patel	punitpatel@utexas.edu	https://github.com/punitpatel9
Josh Papermaster	jpapermaster@utexas.edu	https://github.com/joshpapermaster
ThienSon Ho	thiensonho@utexas.edu	https://github.com/thienson-ho
Rohan Garg	rohanvgarg@utexas.edu	https://github.com/rohanvgarg
Zach Herink	zachary.herink@utexas.edu	https://github.com/zherink

Description of Tasks:

For Phase 3, the following tasks were completed:

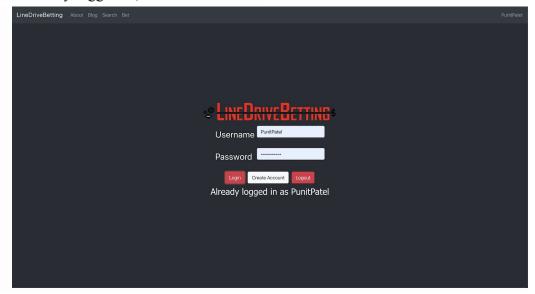
- Created a working blog forum on all game pages
 - Users are now able to discuss their opinions corresponding to the game selected or view all conversations





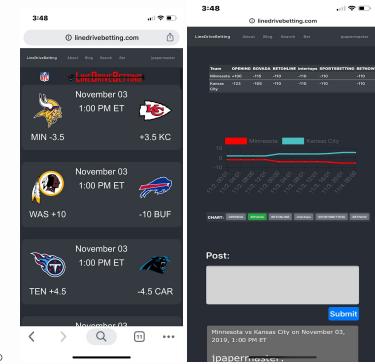
• Finalize Account Management

- o Able to log in and create an account
- o If an account does not exist, an error is thrown
- If account username is less than 4 characters, an error is thrown
- o If already logged in, the user is notified





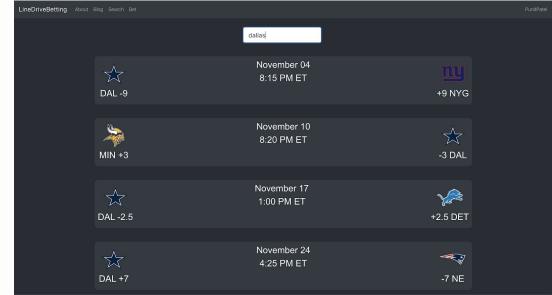
- Cleaner User Interface
 - Users are able to view all games, select to view the desired betting website's data, and view all discussion posts made
 - Can view a website on computer or mobile device



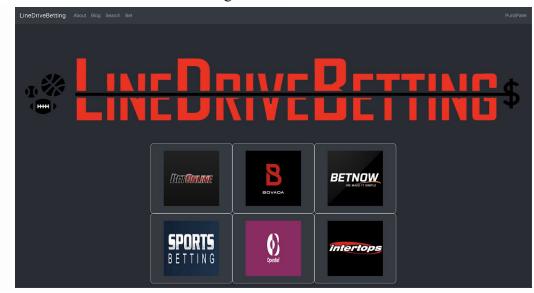




- Searching Capability
 - User is able to quickly search and find the desired game



- Popular Betting Website Redirection
 - Users are able to select the "Bet" option in the navbar and quickly redirect themselves to their desired betting website.



More tests were created

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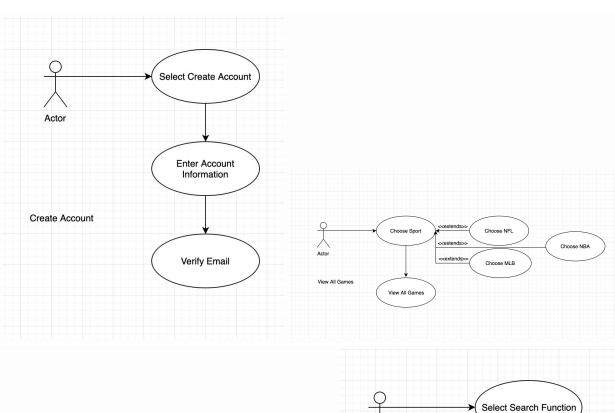
- Integration Tests
 - Frontend and backend connection test

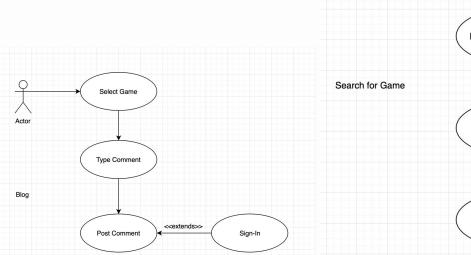
- Mocha Tests
 - Javascript Unit Tests
- Selenium Tests
 - Web application testing
- Pytest
 - Python Unit Tests

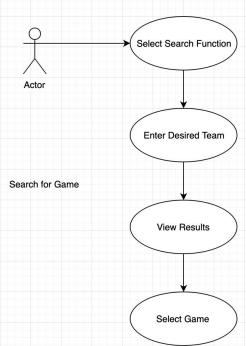
Design:

LineDriveBetting is to provide users with an aggregated betting analytics platform that provides bettors nationwide with money lines and point spreads from the most popular websites. In addition, a Reddit-like blog forum is provided to enable intellectual conversations about betting lines. The home page will allow users to access specific league games, create an account, search for specific games, see the about page, view the blog, and be redirected to their desired site to place a bet. When creating an account, the user will be asked to enter basic profile information. If an account already exists then the user will be notified. In addition, if the username is less than four characters then the user will be notified to input a longer username. On any of the desired league pages, the user will be able to view all scheduled games, the date, the time, and the point spread. After selecting a specific game, the user will see a more detailed breakdown of all betting data from the most popular betting websites. Furthermore, the data is also graphically represented from a selected, popular betting website. At the bottom of the selected game page, there's an option to discuss picks/thoughts with other verified users in the blog forum. For Phase 3, users have been given the ability to search for games, post in the blog section of any desired game, select which website they wish to view graphical data from, bet on their desired website and have a seamless/intuitive user interface. Please refer to the following UML diagram to gain a better understanding of what a user is capable of doing now.

Almost everything we proposed was implemented into our final solution. We ended up adding more features that weren't included in our proposal such as a web page to link to popular betting websites. Additionally, we wanted to implement a feature that emulates liking on reddit but thought it would require too much work for little reward. Overall, we did a solid job of estimating the times that things took and implementing all features proposed.







Requirements:

- 1. As a user, I want to visit www.linedrivebetting.com click on the about tab and see all of the team members for linedrivebetting with their photo, bio, major, number of commits, and number of issues.
- 2. As a user, I want to visit www.linedrivebetting.com and click on the NBA/NFL text to go to the corresponding NBA/NFL page.
- 3. As a user, I want to visit www.linedrivebetting.com and view the linedrivebetting logo so that I can have something to remember the website by.
- 4. As a user, I want to visit www.linedrivebetting.com and visit the NBA page and view NBA related data.
- 5. As a user, I want to visit www.linedrivebetting.com and visit the home page and click on the NFL/NBA text in the navigation bar to go to the respective page.
- 6. As a user, I want to visit www.linedrivebetting.com and be able to create an account so that I can be part of the LineDriveBetting user base.
- 7. As a user, I want to visit www.linedrivebetting.com and be able to log in so that others know who has inputted comments in the blog.
- 8. As a user, I want to visit <u>www.linedrivebetting.com</u> and visit a specific game page and view the trend line and other betting data related to that game.
- 9. As a user, I want to visit www.linedrivebetting.com and visit the blog page and post my thoughts.
- 10. As a user, I want to visit www.linedrivebetting.com and visit the NFL, NBA, and MLB page and look at the betting lines for games next week.
- 11. As a user, I want to go to the NBA page, click on a game that happens today, and look at the point spread for that particular game.
- 12. As a user, I want to visit www.linedrivebetting.com, and filter for specific games and pages from the home screen
- 13. As a user, I want to visit the login page, log in to my account, and create blog posts and comments.
- 14. As a user, I want to visit the discussion section, and post a comment about my thoughts on the predicted lines shown on linedrivebetting.
- 15. As a user, I want to visit linedrivebetting.com and visit the login page, and then log out of my account.
- 16. As a user, I want to visit linedrivebetting.com and search for a game from the home page.
- 17. As a user, I want to select my desired game and post comments on who I think will win the game.
- 18. As a user, I want to visit the desired game page and view the prediction made by the website.

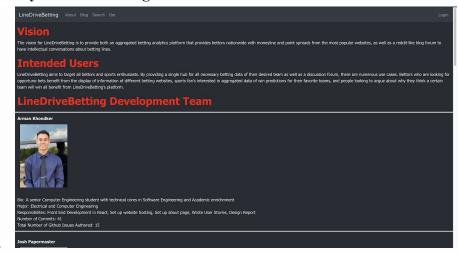
Screenshots (Walk-Through)

1. Visit Home Page

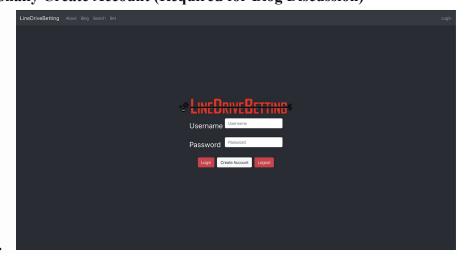


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2. Optionally Visit About Page



3. Optionally Create Account (Required for Blog Discussion)



4. Optionally Search for Desired Team



a.5. Select Desired League



6. View All Games in Desired League



7. Select Desired Game



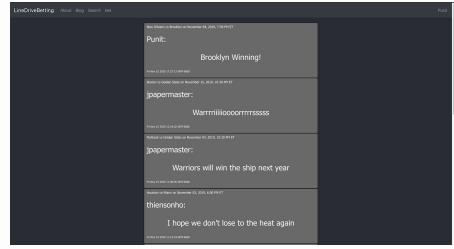
8. View Desired Game Data



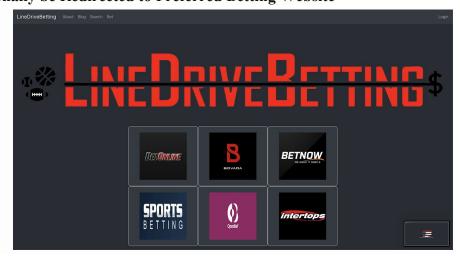
9. Optionally Post in Blog (Account Creation Required)



10. Optionally View All Blog Discussions



11. Optionally be Redirected to Preferred Betting Website



Tools, Softwares, Frameworks:

Frontend: React, HTML/CSS, Javascript

Hosting: AWS

Backend: Python for web scraping

Namecheap: Obtain domain for linedrivebetting

Database: MongoDB

Testing:

Substantial testing was done during this phase as per our proposal. The following tests were done to ensure all Phase III requirements were met:

- Postman API tests
 - Tested https://nu97ojsfol.execute-api.us-east-1.amazonaws.com/latest/api/mlb
 - Tested https://nu97ojsfol.execute-api.us-east-1.amazonaws.com/latest/api/nfl
 - Tested https://nu97ojsfol.execute-api.us-east-1.amazonaws.com/latest/api/nba

Testing Plan:

For this project the following tests were created.

- Mocha/Jest React tests
 - Tested the rendering of our React components
 - Components tested:
 - ImgButton
 - StickNavbar
 - OddsTable
 - GameBar
- Selenium Tests
 - Tested the loading of the webpage
 - Components tested:
 - Tab Title of landing page displays correctly
 - Point spread visible for MLB Game if present
 - Point spread visible for NFL Game if present
 - Point spread visible for NBA Game if present
 - Login with valid account goes through
 - Invalid Search Query displays "No results found"
 - About Page displays correctly
 - Blog Page displays correctly

-These Selenium tests cover many of our website's functionalities and ensure that our site is in a running state for users. As we add more features, more Selenium tests should be added for completeness.

- PyTest Tests
 - Tested functionality of python files
 - Files tested:
 - Find_data.py
 - utility.py

Final Reflection:

When starting this project, we initially struggled with scraping the appropriate game data with its corresponding time and date. After figuring out a way to get the date and time to show, we ran into our second obstacle of having dynamically allocated pages. After learning how to handle this, our struggles continued in creating an adequate blog forum. Fortunately, the blog homework assigned in class helped our team handle this obstacle.

If we were to start over, we would scrape the data from a different website that has easier attainable data. In addition, we would implement the blog and account creation features first to ensure it is user-friendly.

We firmly believe our system meets all of our goals. One thing that can be improved, with time, is the amount of data presented for each game. We think it would be to the user's benefit to have more betting data from more websites. This would help create a more confident betting choice by the user.