COS 333 / Spring 2025 / Project Grade Report

Project Name: TigerType

Team Members: Ryan Chen (rc6542), William Guan (wg6872), and Ammaar Hameed (ah0952)

Graders: Ambri Ma (jiaweim), Jessica Dong (jd9751), and Bob Dondero (rdondero)

GRADING CRITERION	MAX POINTS	POINTS
Deliverables at the beginning of the project		
Project approval meeting	5	4
Project Overview document	5	5
Deliverables during the project		
Weekly status meetings	5	4.5
Wireframes, Prototype, Alpha, and Beta products	7	7
Timeline document	5	5
Deliverables at the end of the project		
Final presentation	8	8
Grader's Guide document	6	6
Product Evaluation document	6	6
Project Evaluation document	3	3
Final product: quantity of functionality	20	20
Final product: quality of functionality: correctness	15	13.5
Final product: quality of functionality: usability	15	14
SUBTOTAL	**100**	96
Adjustments		0
TOTAL	**100**	96

Please see the following pages for comments.

Project Approval Meeting

Grades:

Clear presentation of a consensus idea with concrete plans, and balance of teammate participation (4/5 points)

Comments:

Your elevator speech was reasonable. It was easy to understand your project idea. A more thorough comparison of your proposed system with similar existing systems might have made the project idea more compelling.

Your description of your users was not good. It would have been better to recruit some users, meet with them, and arrange for weekly meeting times with them. It's interesting that you foresaw no need for administrative users.

Your description of what your system will do was fine. We agreed with your decision to develop a web application. Your scenarios describing your minimum viable product (MVP) were clear. We believed that the MVP will be challenging technically. However, you assured us that you know the relevant technologies, and so we believed that you could complete the MVP during the semester. We were happy that you had many stretch goals in mind. We judged that they were numerous and substantial enough to last through the entire semester.

Your description of how your system will work was good. We agreed with your decision to use default course technologies on the server side (Python and Flask) and for the database (PostgreSQL). However, we were concerned that you will use React on the client side. Its steep learning curve could be difficult to climb. Our concerns were lessened because all three members of the team have prior experience with React.

Your description of the risks that you will face was good. In particular, we agreed the application is risky technically. The project will rely on many technologies that are not covered in the course. For example, the use of WebSockets could be challenging. We agreed that there are no risks other than the technical ones.

The balance of participation among teammates was poor. One teammate contributed little.

On the whole… We felt that the elevator pitch could have been more compelling. It would have been better to recruit and meet with your users before the project approval meeting. We believed that development of the front end could be technically difficult and time consuming. The balance of participation could have been better, and we were concerned that throughout the semester the team might rely too heavily upon one particular team member. Generally, preparation for the meeting seemed a bit lacking.

Nevertheless, the meeting went reasonably well, and we approved the project unconditionally and enthusiastically.

Project Overview **Document**

Note: The *Project Overview* document was due on Sunday 3/2 at 11:59PM. We graded the *Project Overview* document that appeared in your project directory at that time.

Grades:

Elevator speech and overview (1/1 point)
Requirements and functionality (2/2 points)
Design (1/1 point)
Milestones and risks (1/1 point)

Comments:

Your Elevator Speech is good. It's attention-grabbing, motivates your system well, and provides a succinct summary of the system.

Your Overview section is good. It does a good job of describing what your project hopes to accomplish.

Your Requirements section is good. It does a nice job of describing the problem and how your system will solve it. It describes the intended users of your system, describes the benefits that your system has for them, and contrasts your system with existing systems.

Your Functionality section includes 4 scenarios; that's good. The scenarios are expressed in the third person, and at an appropriate level of detail.

Your Design section is good. It provides a description of each of the three tiers, the technologies that you anticipate using in each tier, and why you intend to use those specific technologies. It was good to describe your anticipated database schema.

Your Milestones section is good. It describes your minimum viable product and stretch goals at a reasonable level of detail. It then provides a project schedule, again at a reasonable level of detail. The section provides enough detail to assure us that you understand the tasks to be completed and that you have a sense of how long it will take to complete them. The tasks that you intend to accomplish per week are clearly laid out.

Your Risks section is good. We agree with the risks that you identified. Specifically, we agree that your lack of experience with core technologies would make your project learning curve more difficult, but that your project can be successful in any case.

Overall, excellent job on a thorough and polished *Project Overview* document.

Weekly Status Meetings

Grades:

Evidence of preparation (3/3 points)
Balance of participation (1.5/2 points)

Comments:

Your level of preparation for the meetings was evident and strong, with a clear agenda and progress updates that demonstrated thoughtful planning. It was clear that you reviewed technical challenges and resolved them to present a working system with incremental improvements.

The balance of participation during the meetings was satisfactory, with all team members contributing meaningfully to the discussion most weeks. However, some members were not able to articulate their individual contributions and field questions effectively during some weeks.

Wireframes, Prototype, Alpha, and Beta Products

Grades:

Wireframes (1/1 point)
Demonstration of a prototype product (2/2 points)
Demonstration of an alpha product (2/2 points)
Demonstration of a beta product (2/2 points)

Comments:

You provided wireframes during the week when they were due. The wireframes were polished and thoughtfully designed by hand, reflecting a clean and professional aesthetic. Collectively, they formed storyboards indicating how users will interact with your application. Well done.

You demonstrated a successful prototype product during the week it was due. The prototype exceeded expectations, demonstrating a key end-to-end milestone by successfully completing a practice race, displaying the summary statistics, and saving this data to the database. The frontend was especially polished, and each team member was able to successfully build and run the application.

You demonstrated a successful, deployed alpha product during the week it was due. The app showcased a polished and interactive UI with impressive attention to detail — dark/light mode, sound effects, and interactive elements like player booting and timed modes. Core functionality is solidly in place, and you subsequentlyfocused on delivering

stretch goals, including gaming badges and user accomplishments, custom lobby gameplay, and text excerpt cleaning with OpenAI API.

You demonstrated a successful beta product during the week it was due. The beta demo was highly functional and very professional-looking, though the new profile modal was not yet integrated and some finer details to the private lobby mode still needed fixing. You made steady progress towards implementing their stretch goals, so we were not worried about your beta product. We were pleased at the richness of features (allowing the user to customize their UI, lobby-handling) that you were able to demonstrate. Overall, you were positioned to deliver a strong final product based on the quality of your beta.

Timeline Document

Grades:

Maintenance of *Timeline* document throughout the semester (3/3 points)
Final *Timeline* document (2/2 points).

Comments:

Your maintenance of the document throughout the semester was consistent and detailed, capturing weekly updates from each team member. Each member's contributions were clearly delineated, with individual accomplishments such as technical tasks (e.g., web socket design, CAS authentication, and product features) and organizational activities (e.g., meetings and user testing) thoroughly documented. The strengths include consistent weekly updates, detailed descriptions of technical progress (e.g., backend functionality, UI/UX refinements), and a strong commitment to user-centered development through feedback integration and iteration. There is a clear imbalance in length between Ammaar's entries and the other members' entries.

The final version of your document is detailed and effective. It was good that you described your activity through the submission deadline.

Final Presentation

Grades:

System motivation and overview (2/2 points)
Description/demonstration of the system's functionality (3/3 points)
Description of the system's high-level design (2/2 points)
Project wrap up (lessons learned, etc.) (1/1 point)

Comments:

It was good that you introduced yourselves.

Your description of the motivation for your system and your overview of your system were strong. We liked the before/after scenarios and the history/background of type-racers, though it would be good to have a table that summarizes the features of existing systems and your system..

Your description/demonstration of your system's functionality was smooth and flowed well.

Your description of your system's high-level design was good.

Your project wrap up was thorough. It was good to describe what went well, what went poorly, and what you learned. Your description of your database was only partial; but that was understandable given the fact that you have 12 tables (roughly 3x the number of tables of a typical COS333 project).

Your answers to questions were good.

In general, the presentation was well organized. It flowed well. There was evidence of a substantial amount of rehearsal. The presentation went slightly over time.

Ambri: I was glad to see that you incorporated my feedback into your final presentation.

***Grader's Guide* Document**

Grades:

Completeness of the document (2/2 points)
Correctness of the document (2/2 points)
Clarity of the document (2/2 points)

Comments:

It was good to include some introductory text describing your system.

Use Case 1: Accessing the System

The steps to navigate to the login button were clear.

We were able to complete the use case.

Use Case 2: Initiating the TigerType Tutorial

We were able to complete the user onboarding tutorial successfully by navigating with the "Next (...)" buttons.

The solo onboarding tutorial also led us to a practice round as expected, where pressing Tab eventually landed us to the specified prompt. Pressing Esc to reset also worked as anticipated.

As a note, the use case asks us to select “general” from the “type” dropdown. However, there is no “type” dropdown as it appears to have since been updated to “Category.”

We were able to complete the use case.

Use Case 3: Initiating Solo Practice Mode

Similar to above, the use case asks us to select “course reviews” from the “type” dropdown, but this was found in the “Category” dropdown instead.

The use case also asks us to select “COS” from the “department” dropdown, which was instead found in the “Subject” dropdown.

We were able to complete the use case.

Use Case 4: Viewing the TigerType Leaderboards & Other Users

“Closing” the profile modal involved clicking the “Back” button to go back to the leaderboard.

We were able to complete the use case.

Use Case 5: Customizing the User Profile

Use Case 5.1: Accessing the User Profile

We were able to complete the use case.

Use Case 5.2: Customizing your profile image

The green success message is clear and helpful.

We were able to complete the use case.

Use Case 5.3: Customizing your biography

We were able to complete the use case. The green success message is clear and helpful.

Use Case 5.4: Selecting a title to display

We were able to complete the use case.

Use Case 5.5: Selecting a badge to display

We were able to complete the use case.

We were able to complete the use case.

Use Case 6: Customizing the TigerType User Interface

Use Case 6.1: Accessing the Settings

We were able to complete the use case.

Use Case 6.2: Changing the font

We confirm that the fonts throughout the page reflected the change.
We were able to complete the use case.

Use Case 6.3: Changing the excerpt font size

We observed that only the font size within the typing window was affected.
We were able to complete the use case.

Use Case 6.4: Toggling the cursor type

We observed the difference between the block cursor and without.
We were able to complete the use case.

Use Case 6.5: Toggling typing sounds

We observed the typing sound, and that it does not exist for mistakes and backspaces.
We were able to complete the use case.

Use Case 6.6: Changing themes

We verified that the theme was applied across the site.
We were able to complete the use case.

We were able to complete the use case.

Use Case 7: Initiating Quick Match Mode

We confirm that both the primary and secondary grader accounts were visible in one lobby. The progress bar was visible and the winner was clearly displayed after completion.

We were able to complete the use case.

Use Case 8: Viewing User Match History and Statistics

We were able to view and note all the metrics that the use case indicated we should see.

We were able to complete the use case.

Use Case 9: Initiating Private Match Mode

We could view the About Us/FAQ page and could open and read all dropdowns.

We were able to complete the use case.

Use Case 10: Accessing Frequently Asked Questions

We were able to complete the use case.

Additional Functionality

Feature 1: Inaccessible to mobile devices

We confirm that on a mobile device, the log in button is disabled and noted as such.

Feature 2: Inactivity Kick

We confirm that there is a warning message about inactivity and we are kicked out after not resolving that message. It does appear that the timing is the opposite as what is mentioned in the document (10 seconds for the inactivity warning, 15 seconds after that to be kicked out). We confirm a host can kick others out of their private lobby.

Feature 3: Multiple tab detection

We confirm that opening multiple tabs in the same account and attempting to join a non-solo mode results in an alert message on one of the tabs.

Feature 4: Paste detection

We confirm that we cannot paste into the typing text areas.

The document provides a clear overview of what the system does.

The first use case describes how to access and log in to the system, as instructed.

The use cases appear to comprehensively cover the system's functionalities, from following the tutorial to completing races to managing customization.

There are (minor) inconsistencies with what the document states about the website and what actually appears, including names of the dropdown menus and timing for the inactivity kick.

In general, the document would be helpful to people who are learning and using the system.

***Product Evaluation* Document**

Grades:

Testing (2/2 points)
Evaluation by users (2/2 points)
Evaluation by experts (2/2 points)

Comments concerning testing:

Your description of how well the system works is good. Your description of how you tested your system also is good. It was good to express your testing procedure using the testing taxonomy described in the lectures. It was good to describe the results of your testing, that is, which parts of your system work well and which do not. It was good to list all known bugs.

Your testing procedure is properly expressed using the testing taxonomy described in the lectures: internal testing, white box external testing (statement testing, boundary testing), black box external testing (use case testing, stress testing), and test automation.

Comments concerning evaluation by users:

It was good to describe how well the system meets the needs of its users. It was good that you performed an evaluation of your system via interviews of typical users. It was good that you composed tasks, presented the tasks to typical users, observed the users as they used the system to perform the tasks, encouraged the user to talk aloud while performing the tasks, and took thorough notes. It was good that you provided a summary of the results in your document. It was good that you provided the list of the tasks and your notes in appendices. Your notes properly indicate how many users participated in the evaluation.

Comments concerning evaluation by experts:

It was good that you performed a heuristic evaluation of the system, as defined by Nielsen. Your heuristic evaluation was thorough.

Overall, excellent job on the Product Evaluation.

***Project Evaluation* Document**

Grades:

Description of the project experience (1/1 point)
Description of interesting technical problems and solutions (1/1 point)
Acknowledgements (1/1 point)

Comments concerning the project experience:

We found these positive observations particularly interesting:

> “We were pleased to have a functional MVP demonstrated even before the official Alpha demonstration milestone, which allowed more time for refinement and addressing stretch goals like the timed mode and leaderboards.”
>
> “Ensuring smooth and reliable real-time updates via Socket.IO required several iterations, particularly refining progress update throttling and handling disconnection/reconnection scenarios gracefully.”
>
> “PostgreSQL proved to be a robust database solution, well-suited for storing relational data like user stats, race results, lobby information, snippets, badges, and titles. Its seamless integration with Heroku via the PostgreSQL addon simplified deployment.”
>
> “Configurations for vitest (frontend) and jest (backend) helped ensure individual components and utility functions behaved as expected.”

We found these negative observations particularly interesting:

> “Merge conflicts arose occasionally due to parallel development on frontend and backend features, requiring careful resolution using Git rebase and communication.”
>
> “Vite version incompatibility (requiring a downgrade from 5.3.2 to 4.3.5) and challenges configuring the database connection pool and session handling to work correctly with Heroku's environment and connection limits.”
>
> “Initial frontend integration could have been smoother with an established template earlier.”

In general, the document contains a good description of what you learned specific to your project. The document also contains a good description of what you learned that could be applied to other projects. The document gave us a good sense of the project experience and what you learned from it. Very good.

Comments concerning interesting technical problems that you faced and how you solved them:

Your description of the real-time synchronization problem indeed is interesting. It seems that it required significant coordination and refinement on your part in order to provide a seamless user experience. Ensuring that every client sees the exact same game state despite simultaneous actions highlights the challenges of consistency in real time. Balancing update frequency with network and browser performance through throttling demonstrates additional awareness of performance trade-offs. Finally, handling of

disconnections and session recovery shows a commitment to maintaining a seamless and robust user experience, which is commendable.

Moreover, it is impressive that the two members of your team without prior React experience were able to learn quickly and contribute extensively to the frontend portion.

Comments concerning your acknowledgement of use of software composed by others and major sources of information:

Your acknowledgements seem thorough.

Final Product: Quantity of Functionality

Grade:

Relative to team size, the amount of functionality implemented (20/20 points)

Comments:

The quantity of functionality implemented in the system is excellent relative to the number of team members. More specifically, we judge the system's quantity of functionality to be at the A+ level, and so award 20 (out of 20) points.

Ambri: We've discussed this from the beginning and in our weekly meetings – TigerType is very unusual for a COS333 final project, and delivering a system of this complexity requires putting in effort beyond what is expected for the course, especially a group of 3. I acknowledge that the total sum of hours of work spent on this project alone merits a rare 20/20. The final product is also incredibly professional and incorporates many sophisticated moving parts. I could not think of a harder COS333 final project that would still be reasonable to do in one semester, and so I think a perfect 20/20 is well-deserved.

Final Product: Quality of Functionality: Correctness

Grade:

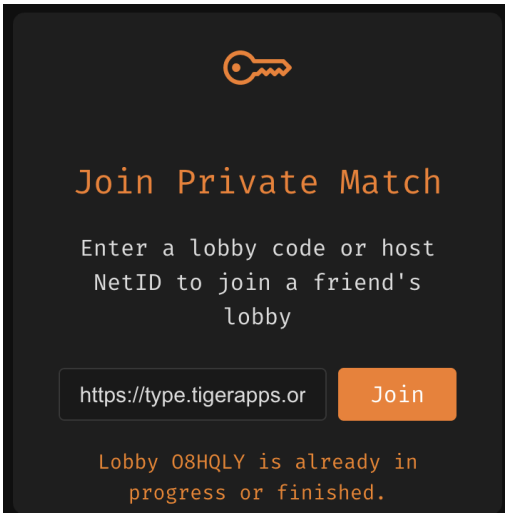
The system works as the programmers intended, that is, the system is robust (13.5/15 points)

Comments:

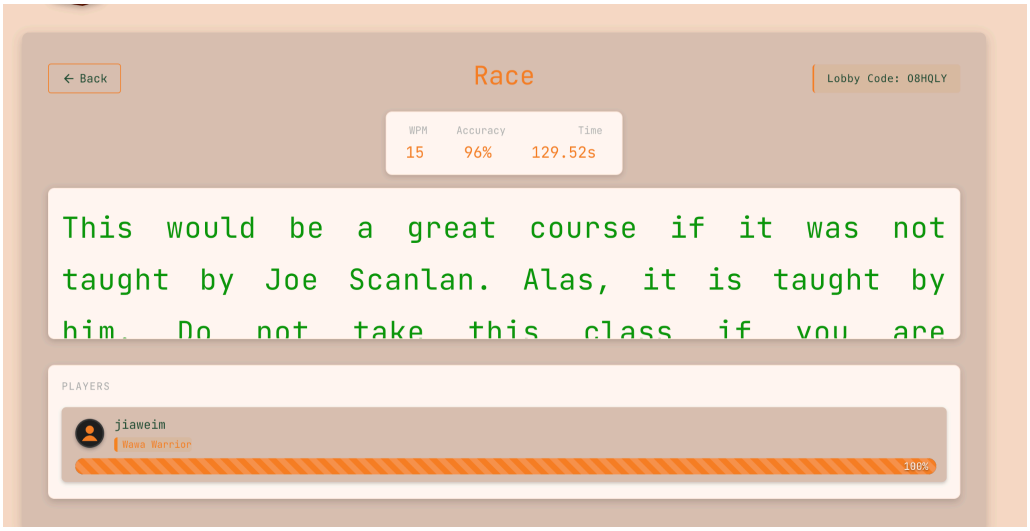
We tested the bio field for vulnerabilities to SQL injection attacks and XSS attacks. The system thwarted the attacks.

We confirmed that, when signed out, the user cannot access server-side routes directly that require authentication, as it redirects to the landing page.

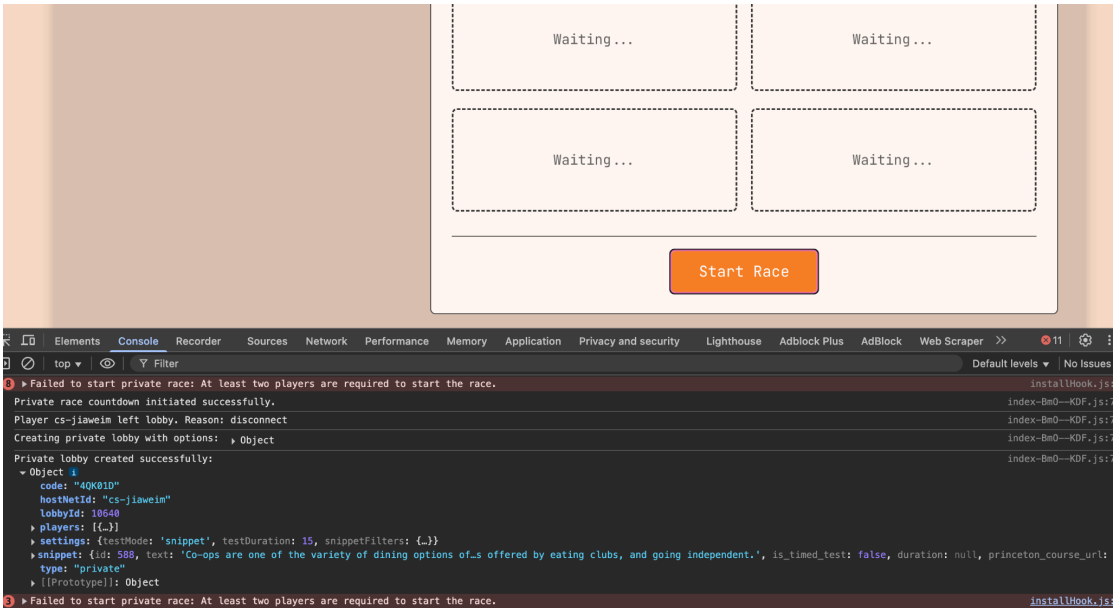
When one of the players in the private lobby leaves the lobby after the race begins, they cannot rejoin.



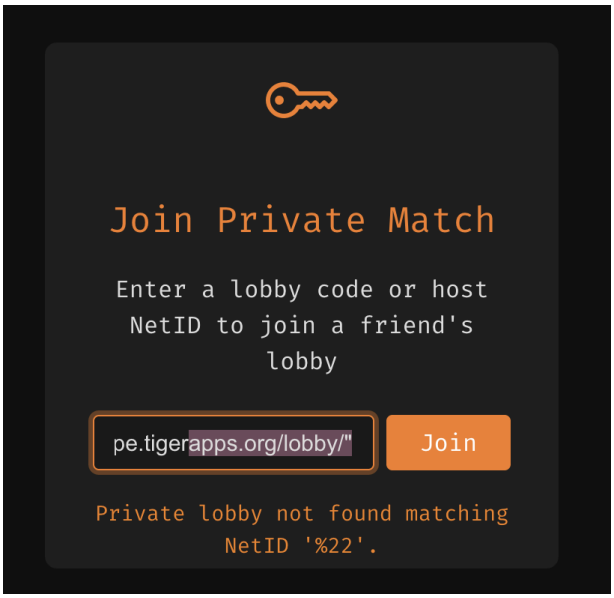
However, when the other player(s) finishes the race, the system does not know that the race has finished.

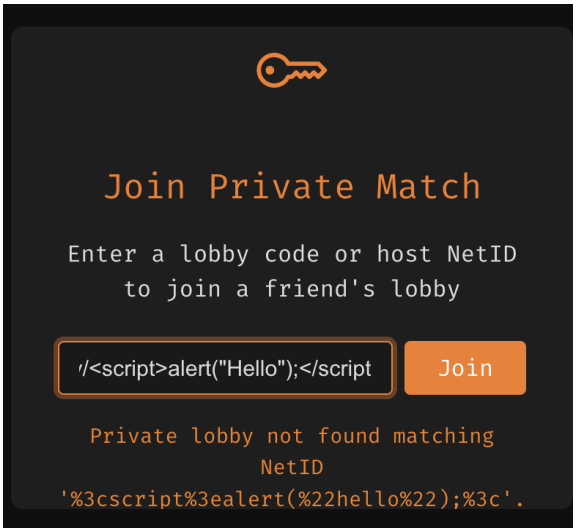


When a user tries to start the private match with fewer than 2 players, there is no message or tooltip displayed to the user indicating that they cannot do this.

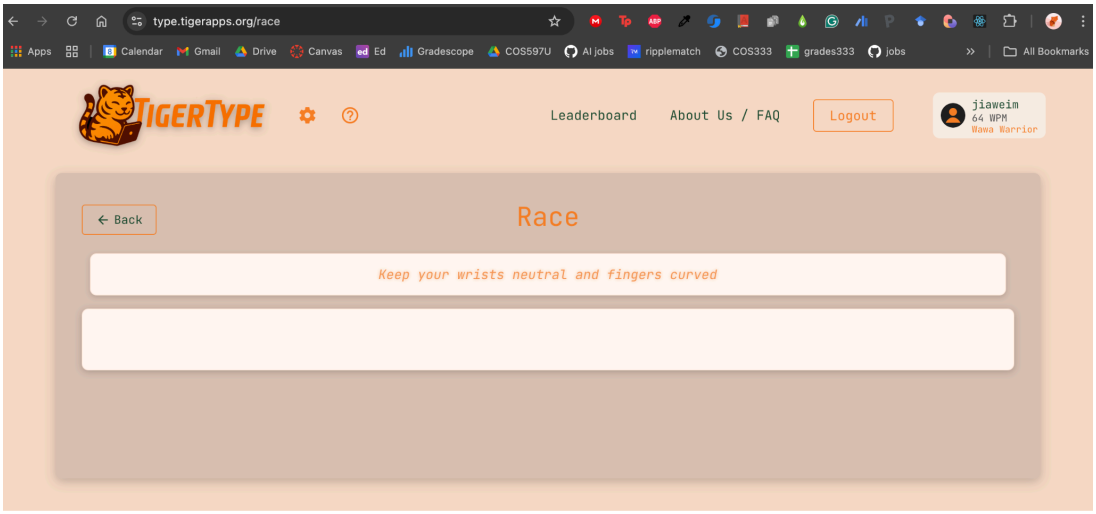


The system behaves incorrectly when the text after “lobby” in the private match URL contains SQL injection, XSS attacks. The lobby codes are displayed oddly in the system message below.

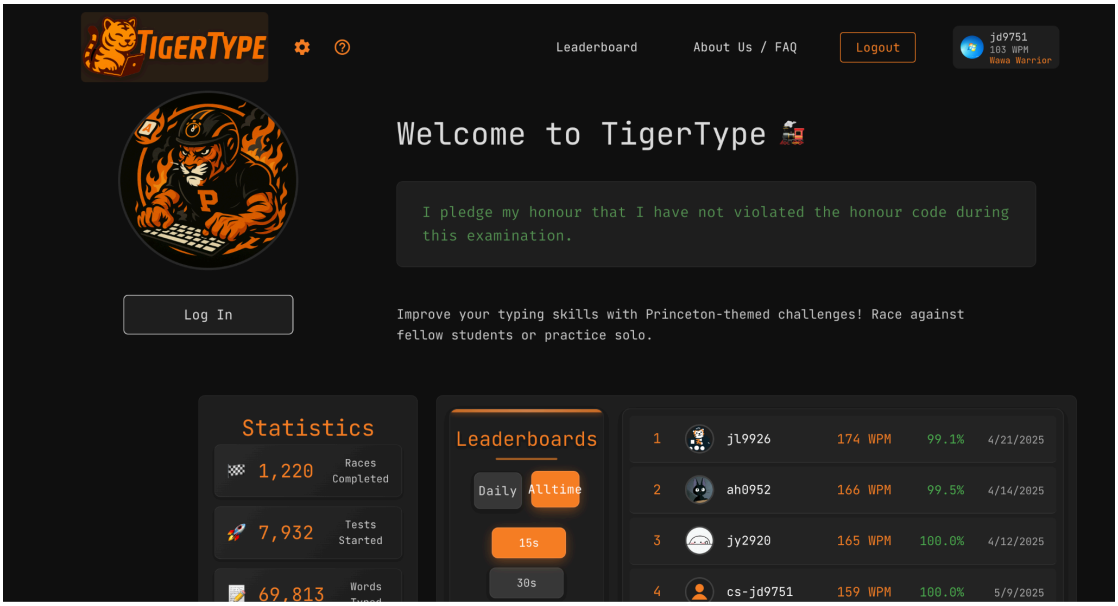




Navigating directly to https://type.tigerapps.org/race brings the user to an empty race page.

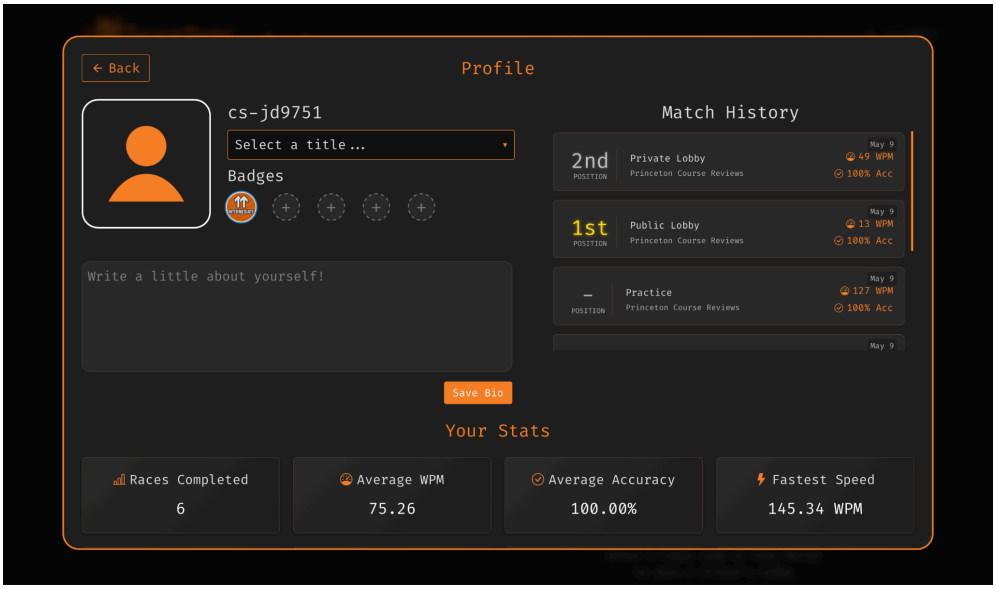


When signed in, we are still able to access the landing page, where the “Log In” button on the left beneath the tiger icon is still active and clickable. Note in the screenshot that the user is signed in (seen in the top right). Also note that the other “Log In” button previously in the navigation bar has updated its text into a “Log Out” button. Through the left “Log In” button, however, we can still access the login endpoint in a scenario where we should not be able to. Though this doesn’t break the system, it is a case of undesirable or incorrect behavior.

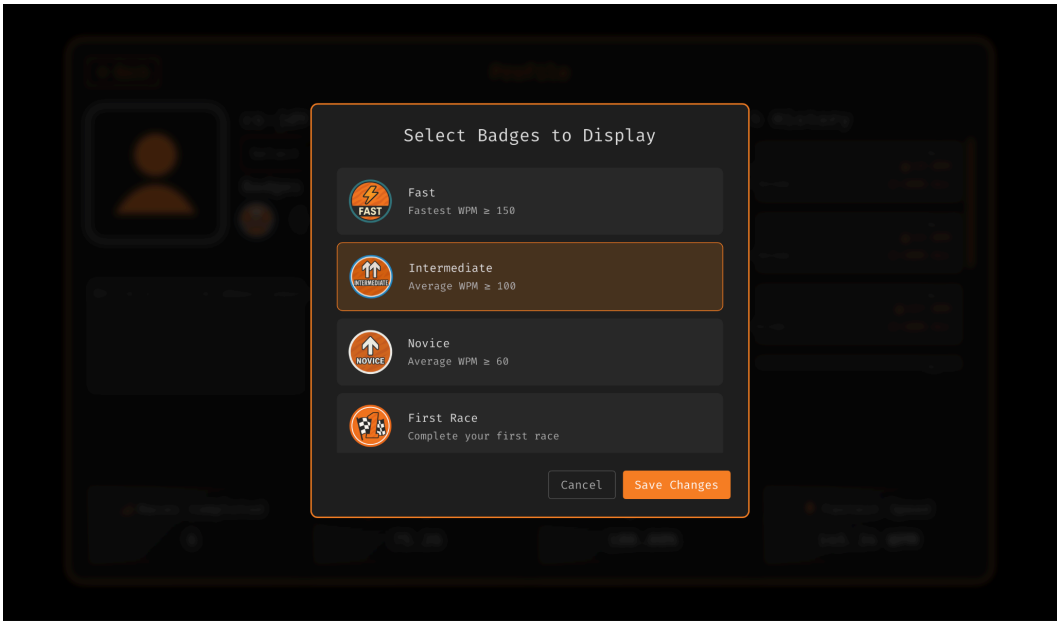


Screenshot: Log In endpoint is still present despite being logged in

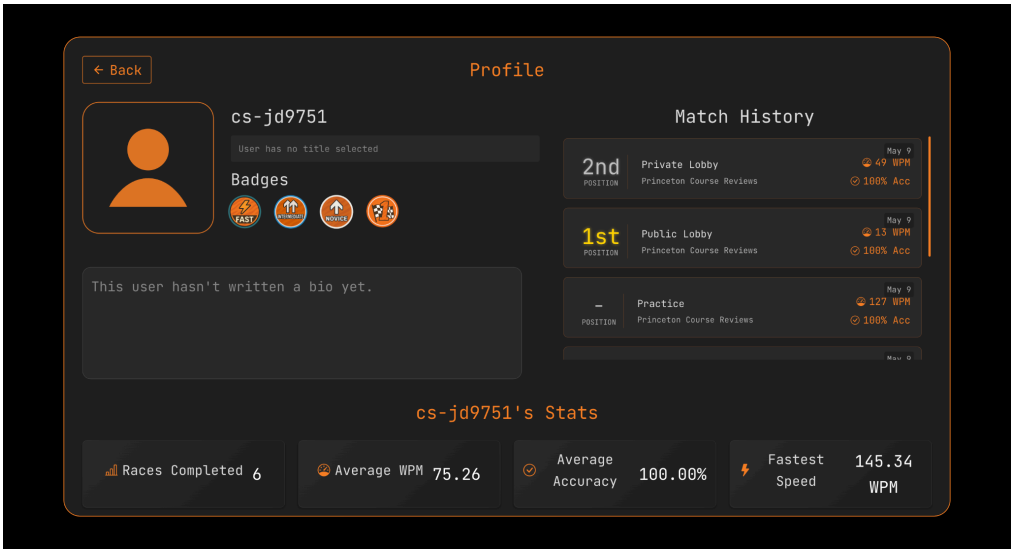
For the badge functionality, when we do not select any badges for our profile, another user is still able to see the badges that we have not selected. That is, let user 1 have the badge “First Race” unlocked but they do not select or save it in their profile. When user 1 clicks on their profile, they see the first screenshot below, and it seems as if they are displaying no badges. However, when a distinct user 2 views user 1’s profile, they see the “First Race” badge populated, along with any other badges user 1 may have. This is in the third screenshot below. This indicates that other users are viewing user 1’s profile differently from what user 1 believes they are displaying.



Screenshot: This is from cs-jd9751’s account. It appears as if only one badge is displayed on cs-jd9751’s account and the others should not be displayed to others.

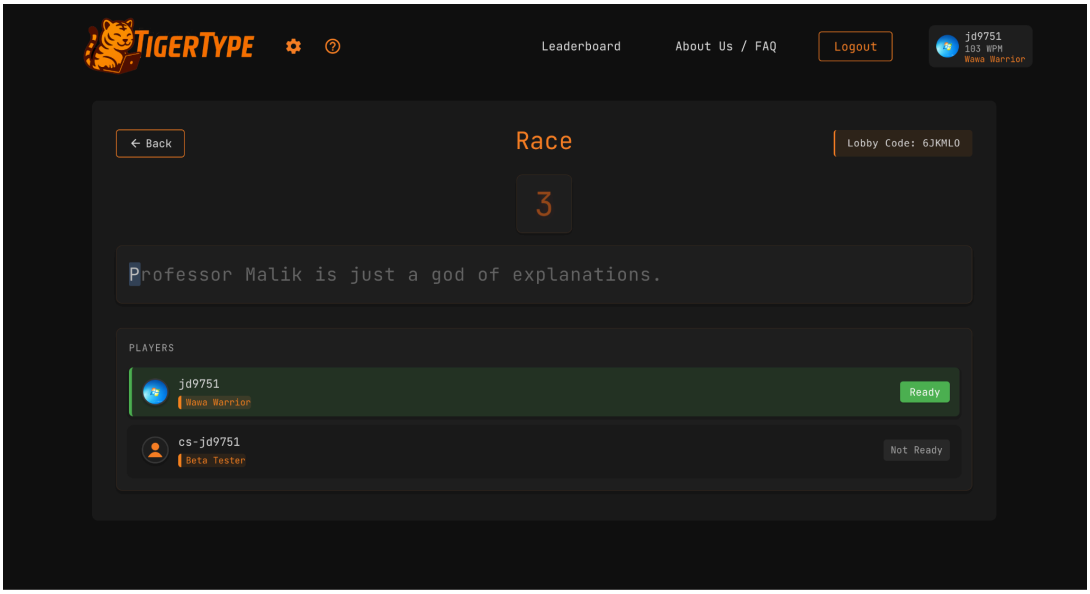


Screenshot: This is from cs-jd9751's account. Despite displaying only one badge, cs-jd9751 does have multiple (4) badges unlocked. This modal indicates that only the "Intermediate" badge is selected.



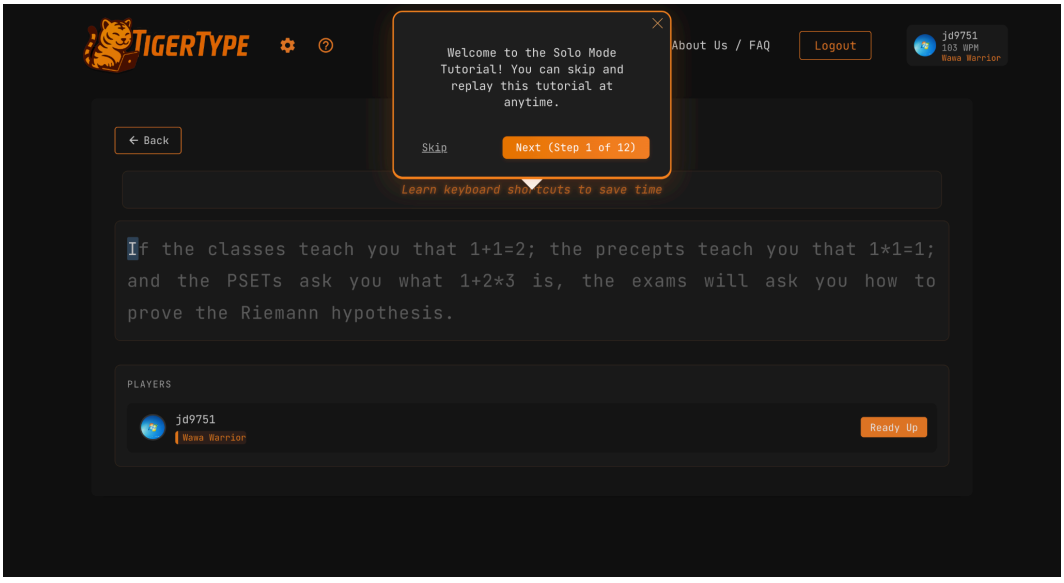
Screenshot: This is from jd9751's account, when observing cs-jd9751's profile page. From this account, jd9751 sees all of the badges that cs-jd9751 owns despite cs-jd9751 only "displaying" one of them.

In the private lobbies, it appears that the host can start the game even if not all other players have readied up. Note that we are unsure if this may be intentional, but seems counterintuitive. See below that the game is starting (counting down) despite cs-jd9751 being marked as "Not Ready."



Screenshot: cs-jd9751 did not Ready Up but as the host, jd9751 was able to begin the private lobby game regardless.

Moreover, we can access the tutorial by clicking the (?) icon in the navigation bar at any time. However, it only seems to work as intended if it is on the home page or the Solo Practice page. On other pages, the initial step displays but clicking Next makes it disappear unless we navigate to another page where there is a valid tutorial.



Screenshot: Clicking the tutorial icon on the Quick Match mode, we see that the tutorial text does not match (indicates that it is a tutorial for Solo Mode). Moreover, clicking "Next" makes the tutorial modal disappear, until we go back to the homepage which triggers the homepage tutorial.

The system is robust. We were not able to “break” the system.

There is evidence of substantial testing.

Final Product: Quality of Functionality: Usability

Grades:

The system works as the users would want, that is, the system is easy to learn and use (14/15 points)

Comment:

Referencing the *heuristic evaluation* and *cognitive walkthrough* criteria:

Visibility of system status

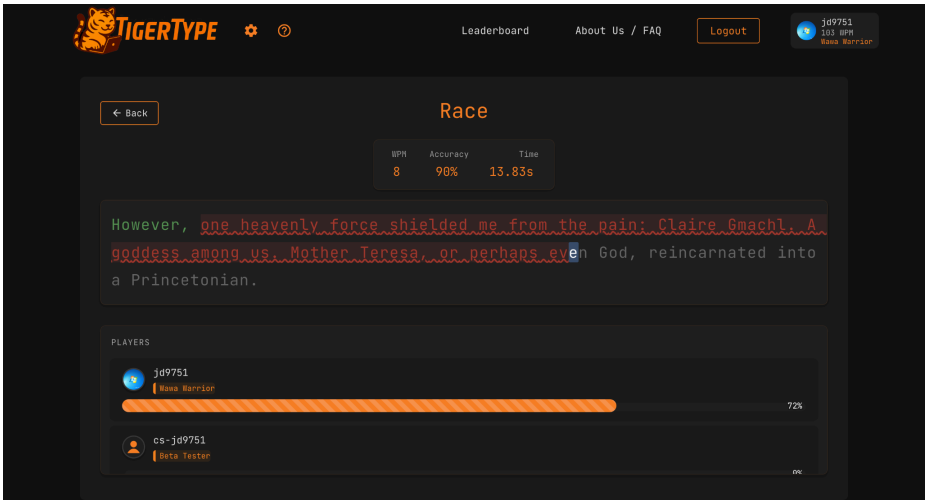
We agree with the evaluation that you provided in your *Product Evaluation* document.

We generally agree with the evaluation that you provided in your *Product Evaluation* document.

The success messages are useful to understand that profile changes have been applied.

When a user leaves a quick match, it is true that other users are notified through a disconnected popup under their status. However, this is not the case for private lobbies. That is, if someone leaves during a match, other users do not see the disconnected message under their status.

The progress bar below a quick match/private lobby does help to reflect the system status. However, even if we type incorrectly, the progress bar still increases in percentage (though we do not complete the game successfully). This seems like an erroneous reflection of the system status as the progress is actually not increasing.



Screenshot:. Note that the majority of the typing is incorrect but the progress bar reflects 72%, including the erroneous text in that calculation.

For the most part the system's status is consistently visible.

Match between system and the real world

We agree with the evaluation that you provided in your *Product Evaluation* document.

The options are well named and reflect intuitively what clicking on that option would mean.

We agree with the comment that the difficulty controlling the length of the passage, not the actual content of the passage, is misleading.

We appreciate the tooltips in the settings menu to explain some of the less commonly understood terms.

There is a good match between the system and the real world.

User control and freedom

We agree with the evaluation that you provided in your *Product Evaluation* document.

The system provides users with control and freedom, in particular with the multitude of customization options in the settings menu.

The application seems to use a single page application with React routing, and using the back button does not work to navigate through the application. For instance, consider that we were on the homepage and clicked on Solo Practice, but changed our minds and wanted to choose another option. We would have to

use the “Back” button provided in the modal rather than using the browser back button.

The system provides users with control and freedom.

Consistency and standards

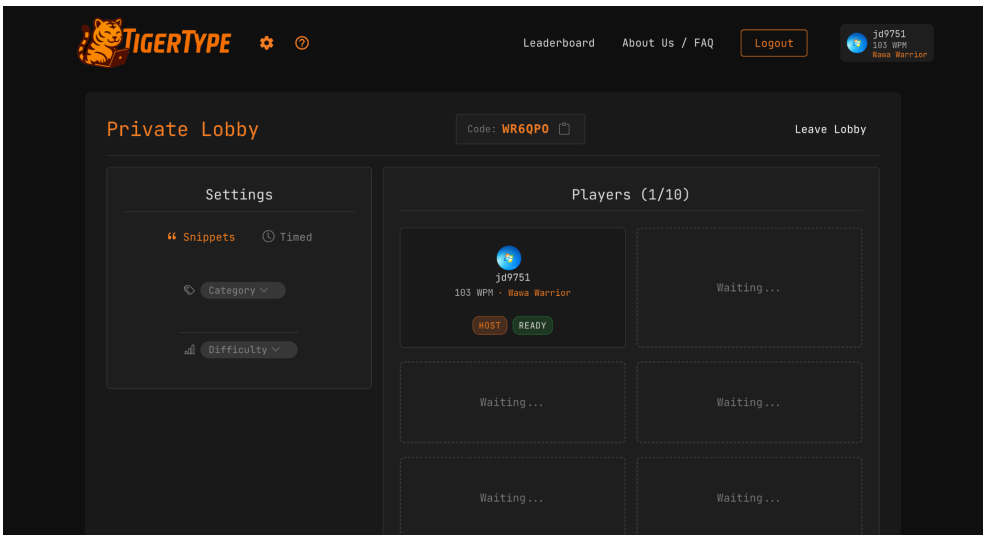
We agree with the evaluation that you provided in your *Product Evaluation* document.

The system is consistent and conforms to applicable standards.

Consistent wording is used to refer to the different game options.

“Quick Match” is also referred to as “Public Lobby,” which may become confusing in the future if you decide to pursue public tournaments, etc. It would be good to use consistent language.

In a private lobby, it does not seem like the host can toggle themselves as Not Ready. This may be confusing as in the Quick Match option, all users have to manually toggle themselves as Ready before beginning the game. The host may want to have the option to not automatically be set as Ready.



Screenshot:. The host is always marked as ready. We could not find an option to toggle the host as not ready.

There are issues with the cursor displaying as a clicking cursor to indicate clickability for a button (or vice versa). When we hover over the top left icon for our profile, our cursor is a text or arrow cursor rather than a clicking cursor. This may be confusing, as it would be standard for the cursor to change into a clicking cursor to indicate that this is a button to be clicked. Moreover, hovering over the profile pictures of other users in the user profile modal changes our cursor into a

clicking cursor, which indicates that these profile pictures could be clicked; however, this is not the case.

Screenshot:. The profile picture button does not use a clicking cursor to indicate that it is a button.

Screenshot: This is from jd9751's account, looking at cs-jd9751's user profile page. It appears like we can click on the image due to the clicking cursor, but when we do there is no effect.

The system is consistent and conforms to applicable standards.

Error prevention

We agree with the evaluation that you provided in your *Product Evaluation* document.

There are scenarios where the user only discovers they are in error after receiving an alert. It would be nice to let the users know about these potential issues

beforehand in order to let the user avoid ever making this error in the first place, namely the inactivity kick and opening multiple tabs.

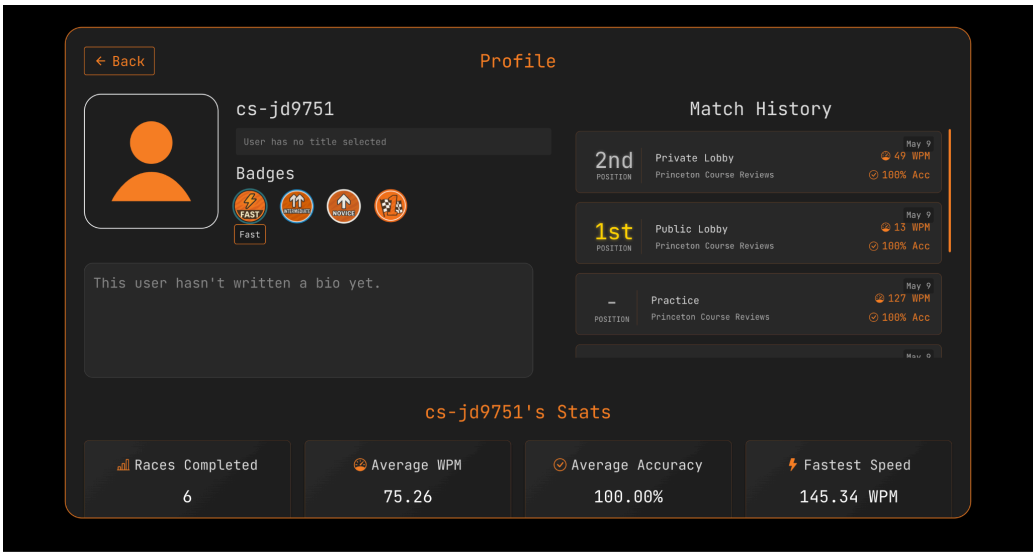
The system prevents the users from making errors.

Recognition rather than recall

We agree with the evaluation that you provided in your *Product Evaluation* document.

It is easy to tell which page we are on due to the headings in each modal.

For the badges, it would be nice if we could click on the badges on other user's profiles to read what the badge was accomplished for. Currently, we only see the title of the badge and may have to remember or infer what it may be for.



Screenshot: We are only able to hover over the badge to see the name/title of the badge, not what it was earned for exactly.

The system emphasizes recognition rather than recall.

Flexibility and efficiency of use

We agree with the evaluation that you provided in your *Product Evaluation* document.

The icons throughout the webpage are intuitive and relevant.

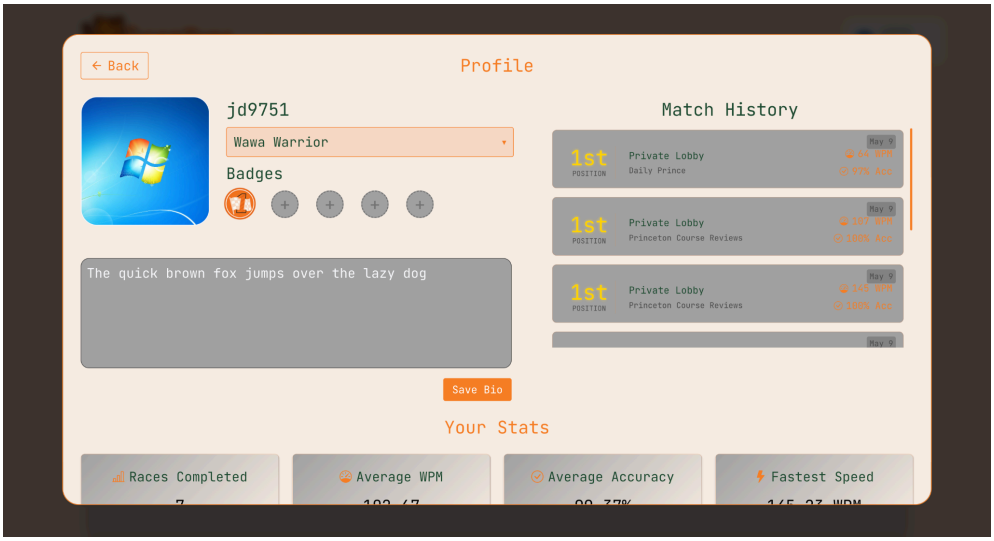
The keybindings are useful.

The system is flexible and efficient to use.

Aesthetic and minimalist design

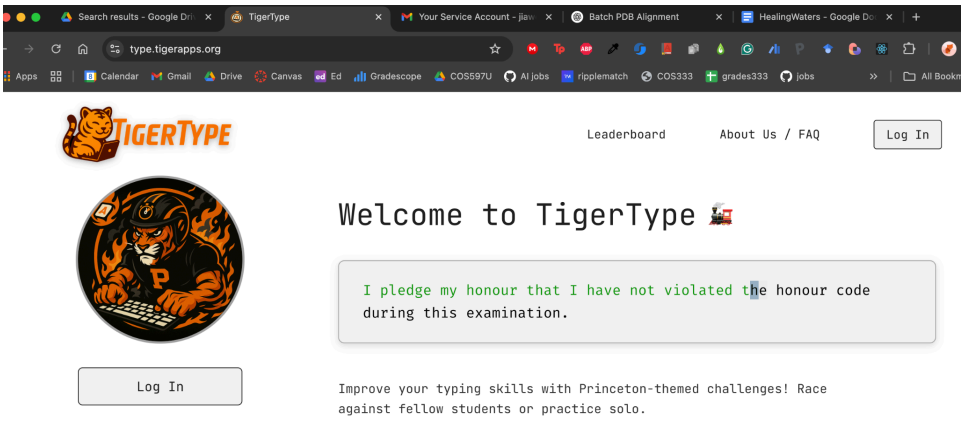
We agree with the evaluation that you provided in your *Product Evaluation* document.

We agree with the comment that the lighter modes are difficult to read at times. Some of the pop-up modals appear to be more oriented to be readable for dark mode options.



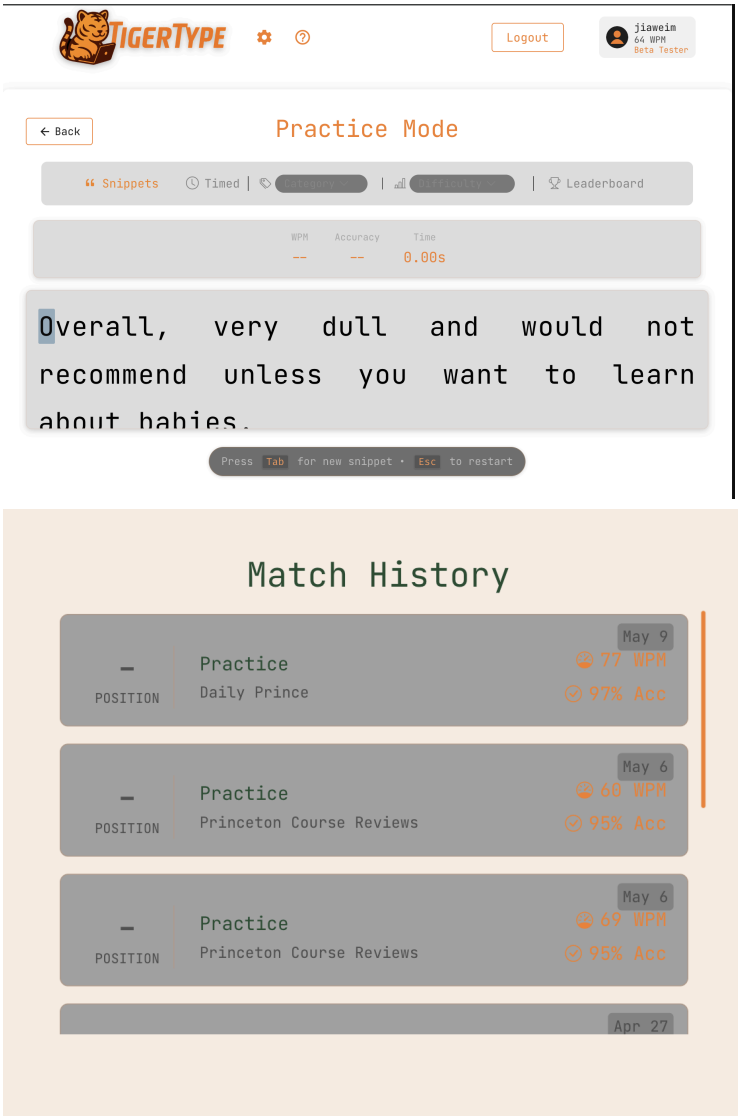
Screenshot:. This text is relatively difficult to read in the "Tangerine" theme. Particularly, the orange on grey text in the Match History section is difficult to read.

We found that TigerType's logo/avatar is inconsistent on the landing page: there is the train emoji, the football tiger on fire avatar, the cute tiger typing, and the simple favicon (of a timer?). It would be good to be consistent about the main logo or "face" of the application (e.g. the train theme doesn't appear anywhere else, and ferocious football tiger sticks out from the minimalist aesthetic).

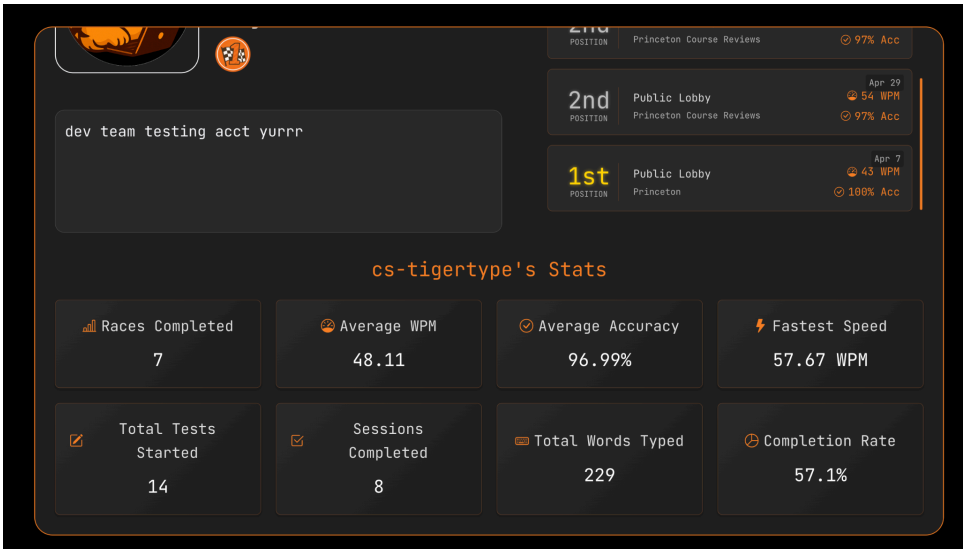


There are some coloring and design issues that you mentioned.

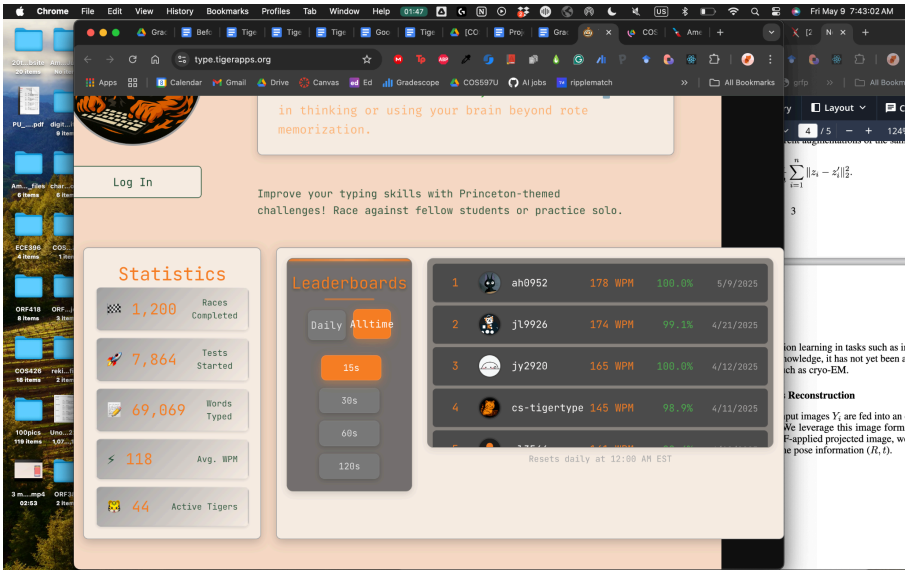
Text coloring issues:



Logo placement consistency issue:



Landing screen component width issue when window width is reduced:



Overall, the system has an aesthetic and minimalist appearance.

Help users recognize, diagnose, and recover from errors

We agree with the evaluation that you provided in your *Product Evaluation* document.

The system helps users recognize, diagnose, and recover from errors through alerts (opening multiple tabs) and inactivity (popup error).

We acknowledge the known bug that you mentioned, where the inactivity kick modal is used for a host kick in a private lobby. This text, if not later addressed, could be confusing as the user would be unsure if they actually were kicked for inactivity or by the host.

When the host of a private lobby attempts to start a game when there are no other players, pressing the “Start Race” button results in no effect. This makes sense, but it would be reasonable to have an alert or message indicating the reason why and what to do in order to start the race successfully (have >1 player).

When a user tries to join their own private lobby, the error message is not as descriptive as it is for other cases.

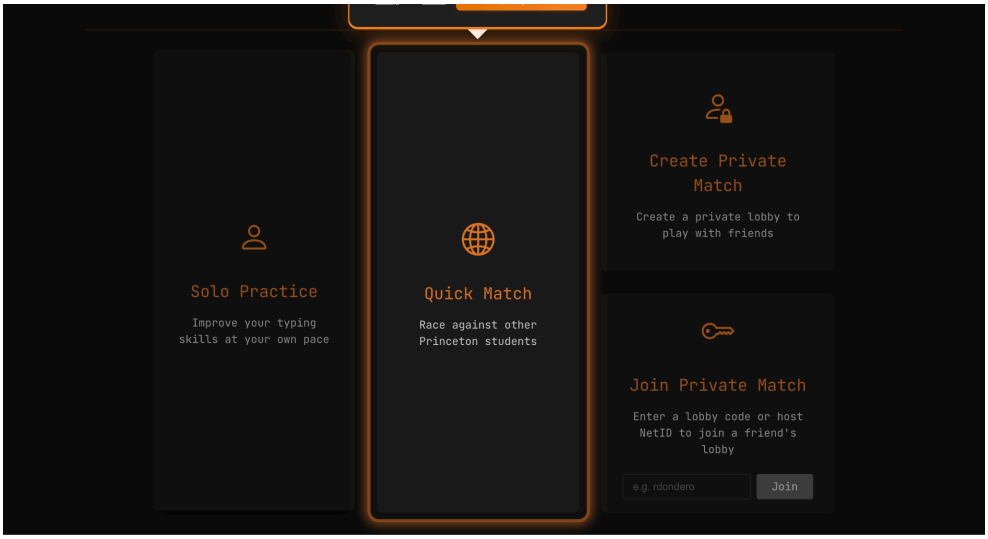
The system helps users recognize, diagnose, and recover from errors.

Help and documentation

We agree with the evaluation that you provided in your *Product Evaluation* document.

The tutorial system for navigating the application and Solo Practice is very helpful.

We do note that during the tutorial, the window would scroll to center on the box the tutorial points at, requiring the user to scroll back up to read the tutorial description. It may be helpful to prevent this from happening and allow the user to scroll down to look at the box after reading the tutorial description.



Screenshot: When clicking the "Next (...)" button from the previous step in the tutorial, this is what the screen will look like next. It is difficult to read the text of the tutorial and requires multiple instances of scrolling back up.

Next action sufficiently evident

Next actions are clearly labeled with buttons ("Ready Up", "Leave Lobby").

It can be unclear in the Quick Match scenario when the race is supposed to begin.

At each state the correct action to be performed to achieve a task is sufficiently evident to the user.

System response interpretable

Success and error popups are helpful.

Loaders are not necessary at the moment but could potentially become necessary in a high-traffic scenario (e.g. tournaments).

At each state the user can associate and interpret the response from the action correctly.

Source Code

Required but not graded.

Your project team directory contains the source code that your team composed, as it should.

Adjustments

None.

Miscellaneous

Ambri: It was my pleasure to work with you all this semester. You've come a long way from the beginning of the semester. Obviously I don't need to say more about the future of this project – I know it's in good hands. Nevertheless, I hope it becomes a very successful TigerApp and inspires students to design games of their own and create similarly engaging web experiences. Though my laptop keyboard has sticky/faulty keys due to an unfortunate beverage spillage from junior year, and despite being Princeton's slowest typer (so you know I don't say this next part lightly), I really enjoyed using TigerType :) Wishing you all the best over the next two years at Princeton and every success as future software engineers!

Jessica: I enjoyed working with your application – this was very impressive for a one-semester project, nice work!

Excellent work.

Congratulations on completing the COS 333 project!