**Spring 1 Planning Document**

PROJECT: **ORACLE**

Team #15

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**SPRINT OVERVIEW**

Our goal for this sprint is to lay the initial groundwork for our project. By the end of the sprint, we hope to have a basic page complete where users are able to register and login to their account. From there, they should be able to set their specific preferences and get matched up with a coach or student. Our backend should have a completed matching algorithm, as well as the necessary database tables and functions required to facilitate these actions.

Rami will serve as our scrum master for this sprint. Furthermore, we have split this sprint into various “teams.” Team members will be responsible for each User Story task that their team is marked down on. We are planning on meeting once a week on Saturday over voice chat in order to catch up with everyone’s progress. Furthermore, certain teams will work together more than others - for example, front-end will work alongside both the Backend and Pairing Algorithm teams to hook the various task parts up.

There are a few challenges that we have to approach this sprint. Version control will be crucial across all the splits and we will have to ensure that changes are not overwritten. By splitting our project up into various teams, less merges should be required given proper branching. This is an important hurdle because improper github usage will add a lot of extra unproductive hours. The other problem we will face is figuring out how to test our user stories properly. Certain user stories will require extensive testing - particularly our matching algorithm and user creation. These tests will have to be automated and will need to consider edge cases. If our test is not extensive enough, we could end up with a flawed product.

**CURRENT SPRINT DETAILS**

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| Task Team | Team Members | Total Hours |
| Front End | Rami Bitar, James Shao | 51 |
| Backend | Alex Shelley, Yash Pujara (Rami Bitar, James Shao) If needed | 89 |
| Pairing Algorithm | Rohan Swaroop | 25 |
| Testing | Rami Bitar, James Shao, Alex Shelley, Yash Pujara, Rohan Swaroop | 45 |
|  | | 210 |

1. **As a user, I’d like to be able to register/log-in and save my user data**

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| Team | Hours | Description |
| Front End | 10 | Creating initial setup/homepage and login/signup form, preferences page |
| Backend | 10 | Involves password hashing, sending cookies, etc. etc. Also involves updating the database when the user changes preferences. |
| Pairing Algorithm | 0 |  |
| Testing | 4 | Test by logging in. Need to make a test version of the database so we don’t muck up the real one. |

**Acceptance Criteria:**

1. Given a new email and valid password when creating a new account then a new account should be made.
2. Given valid account info (username/password) when logging in then you should be brought to the main screen with your account details loaded.
3. Given a previously used email address when creating a new account then you should be rejected and notified the email is already used.
4. Given invalid account information when logging in then the login should fail
5. Given invalid sign-up information when signing up, then the sign-up should fail
6. **As a user, I’d like to be able to mark myself as a coach or student**

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| Team | Hours | Description |
| Front End | 2 | After login, redirect to this page which has to made with the two options then gives you the option to enter the queue |
| Backend | 3 | Need to include this as part of the database |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that you click coach and enter queue when you try to find a match then you should be set as a coach in the queue
2. Given that you click student and enter queue when you try to find a match then you should be set as a student in the queue.
3. Given that you click coach or student but do not click enter queue when you try to find a match then you should be able to deselect your option or switch options as you have not committed yourself by entering the queue.
4. **As a student, I’d like to be able to mark specific aspects of the game that I’d like analyzed for improvement**

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| Team | Hours | Description |
| Front End | 4 | Decide on what aspects of gameplay are important & preferences page |
| Backend | 4 | Add an entry to the database. Verify and and respond to a request from a client to change the settings. Respond to request from the pairing algorithm. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I am logged in and on the matching preferences page, when I mark one of my preferences, then I expect to see it change on the page.
2. Given the above conditions, I should only be matched with coaches who have marked that they are willing to coach those things.
3. Given that I have already marked something I want reviewed, when I click it again, I expect it to be unmarked.
4. **As a coach, I’d like to mark the rank bounds of people I’d like to coach**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 2 | Coaching Preferences Page creation and adding functionality |
| Backend | 4 | Add an entry to the database. Verify and and respond to a request from a client to change the settings. Respond to request from the pairing algorithm. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that no bounds are entered when selecting ranked bounds to coach then it should allow people of every rank.
2. Given that you input a lower bound for rank when selecting ranked bounds to coach then it should only pair the user with people at or above that rank.
3. Given that you input a upper bound for rank when selecting ranked bounds to coach then it should only pair the user with people at or below that rank.
4. **As a coach, I’d like to be able to create a schedule on my profile for when I’m free**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 10 | Need to make an entire GUI. Like, no joke, this is gonna be a lot. |
| Backend | 10 | Need to figure out the best way to represent this to the database. Need to send the stuff back to the client so they can display it. Need to respond to client requests to change it. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given the user is logged in, when a user visits his/her preferences page, then the UI will show an editable weekly calendar with certain periods of time blocked out.
2. Given that the user has changed their preferences regarding when they are free, when they make these changes, then the database will receive and store this information.
3. Given that the user is logged in, when a user visits the page of a coach, then the UI will show that coach’s schedule for when they are free.
4. **As a user, I’d like to customize my profile with a profile picture, etc**

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| Team | Hours | Description |
| Front End | 4 | Add an image which defaults to your summoner icon but can be replaced by an image of your choice. |
| Backend | 4 | Need to add a NOSQL thing to store the image. Same stuff as above for responding to the front end and whatnot |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I am on the preferences page, when I click “browse” then I expect the file picker window to show up.
2. Given that I am in the file picker window, when I choose a file and click “upload”, it should be sent to the server.
3. Given that I have uploaded a picture, when I view my profile(or when other people view it), I expect to see the picture. I also expect to see a tiny version in the chatroom(if the chatroom has been made yet)
4. **As a coach, I’d like to specify which aspects of the game I’d prefer to coach people on.**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 4 | Additional functions to Coach preferences page |
| Backend | 4 | Add an entry to the database. Verify and and respond to a request from a client to change the settings. Respond to request from the pairing algorithm. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I make no preferences when specifying aspects then it will not be taken into consideration when matching you with someone. Or rather it will say that you can coach anything.
2. Given that I select multiple preferences when specifying aspects then it will queue you up for those multiple aspects and not the others.
3. Given that I select a single preference when specifying aspects then it will only match me up with someone looking for that aspect.
4. **As a user, I’d like to be able to provide my summoner name to verify my rank**

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| Team | Hours | Description |
| Front End | 1 | Simple Text box on Profile Page |
| Backend | 15 | This is going to be a real pain. We’ll need to create a bot for the game that logs in and sends a friend requests. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I have entered my summoner name/id, when I click the “verify summoner name” button on the settings page, I expect my riot account to be sent a private message containing a random string of characters.
2. Given that I have received that random string of characters, I expect my account to be verified when I enter those characters back into the website.
3. Given that I have received that random string of characters, I expect the verification to fail if I enter them wrong.
4. **As a coach, I’d like to specify whether I want to view a live game or a replay.**

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| Team | Hours | Description |
| Front End | 1 | Toggle on Coach Preferences Page |
| Backend | 8 | Need to implement an actual replay-linking system. |
| Pairing Algorithm | 2 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I have have opted to view a live game, when I get matched with someone, I expect to view the live game and not a replay.
2. Given that I have opted to view a replay, when I get matched with someone, I expect to view the replay and not a live game.
3. Given that I have not chosen either way, I expect to view either one when I get matched with someone.
4. **As a coach, I’d like to be able to see what my student wants analyzed in particular before spectating**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 1 | Displayed when match is found on an alert box |
| Backend | 1 | Just need to query the database |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that a student does not provide an analytics criteria when matched with a coach then a coach can coach as they want.
2. Given that a student provides analytic focus points when matched with a coach then a coach can see those points and then focus on them.
3. Given that a student does not provide criteria for analysis before being matched then we ask if they are sure.
4. **As a student, I’d like to be able to rate my coach after the session on his personality / amenability, knowledge level, and overall performance.**

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| Team | Hours | Description |
| Front End | 3 | Need to make those nice upvote/downvote arrows with little animations. Need to display the coach’s total score. |
| Backend | 4 | Need to update the cached total votes when user casts a vote. Need to recalculate the cached total votes periodically, just to be safe. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that the user is a student, when the student reaches the end of their coaching session, then they will be presented with a list of questions and asked to provide an upvote or a downvote.
2. Given that the user is a student, when the student reaches the end of their coaching session, then they will be presented with questions regarding the coach’s amenability, knowledge level, and overall performance.
3. Given that the user is a student, when the student has submitted their ratings, then the backend will receive this information, calculate the coach’s updated rank, and store this information in the database.
4. **As a user, I’d like to have my Twitch stream embedded in the client**

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| Team | Hours | Description |
| Front End | 1 | Text box to insert link to your Twitch Stream |
| Backend | 4 | Need to fetch the twitch stream and then patch it in to the webpage before sending it. |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that the user has specified their Twitch link in their preferences and is currently streaming, when another user visits their profile, then their Twitch stream will be displayed.
2. Given that the user has specified their Twitch link in their preferences and is not currently streaming, when another user visits their profile, then their Twitch stream link will be displayed.
3. Given that the user is a coach in a coaching session, when the student is still in their game and is streaming to Twitch, then the student’s stream will be displayed to the coach in the UI.
4. Given that the user has not specified a Twitch link in their preferences, when another user visits their profile, then a blank Twitch stream will not be displayed.
5. **As a user, I want to be matched with a coach/student within my specified parameters**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 5 | Waiting animation/page while waiting to be matched, once matched - redirect to new page. |
| Backend | 4 | Need to feed user data from the database into the pairing algorithm |
| Pairing Algorithm | 15 | Algorithm needs to take into account all user preferences concerning overall skill level, specific strengths/weaknesses, etc., and match coaches with appropriate students |
| Testing | 15 | Need to create many test cases with a diverse array of users in a queue, each with unique block lists, preferences, etc. |

**Acceptance Criteria:**

1. Given the pairing algorithm is running, when a new user enters the queue, then the algorithm should add this user into consideration when matchmaking.
2. Given that a reasonable amount of time has passed, when the user remains in the queue, the algorithm should become less and less strict about who it will allow to match.
3. Given a list of users in the queue, when the pairing algorithm is called, then it should return two unique users, a student and a coach, who of all the users in the given queue, are best matched to each other’s preferences and skill levels.
4. **As a coach, I want to be matched with a student in a timely manner**

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| Team | Hours | Description |
| Front End | 2 | Notification of being matched and with whom |
| Backend | 4 | Need to send the notification above to the front end when a match is made. |
| Pairing Algorithm | 10 | Algorithm needs to work quickly and efficiently even when a large number of users are in the queue |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that there are ample users on the server, when I click the button to queue up, I expect to find a match in less than 20 minutes.
2. Given that there are not ample users on the server when I queue up then I should have the option to withdraw from the queue.
3. Given that there are ample users but not one matching my needs, when I click the button to queue up then as time goes on it becomes less selective but I have the option to reject.
4. **As a user, I want my user account to save my preference and user information**

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| --- | --- | --- |
| Team | Hours | Description |
| Front End | 1 | Need to make the settings page |
| Backend | 10 | Need to send a query to the database, as well as plan out the database structure |
| Pairing Algorithm | 0 |  |
| Testing | 2 |  |

**Acceptance Criteria:**

1. Given that I have changed a setting, when I log out and log back in again, the setting should be just as I have left it.
2. Given that I am logged in, when I click on the link to the settings page, I should see the settings menu appear.
3. Given that I have logged, when I view the settings page, I should only see my own settings, and not someone else’s.

**REMAINING BACKLOG**

**Functional**

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| Backlog ID | Functional Requirements |
| 5 | As a user, I’d like to be able to chat with the coach after the game is over |
| 8 | As a coach, I’d like to be able to spectate my student’s game |
| 9 | As a user, I’d like to be able to view skill-order of the game in the chat room |
| 10 | As a user, I’d like to be able to view item builds of the game in the chat room |
| 11 | As a user, I’d like to be able to view champion kdas of the game in the chat room |
| 13 | As a user, I’d like to be able to have a shareable chat room link for the game |
| 15 | As a coach, I’d like to be able to verify my summoner ID via in-game confirmation\* |
| 18 | As a student, I’d like to be able to upload a replay and have a coach review *that*, instead of a live game.\* |
| 20 | As a student, I’d like to see past coaching session logs |
| 21 | As a user, I’d like to see the rank progression of a coach’s past students |
| 22 | As a user, I’d like to be able to mark my coaching session as private or open to the public |
| 23 | As a user, I’d like to be able to draw on a map that is viewable to both users |
| 24 | As a coach, I’d like to host a live “AMA”(ask me anything) chat session open to the public. |
| 27 | As a student, I’d like to be able to schedule a coaching session with a coach of my choice\* |
| 28 | As a user, I’d like to use league-theme emoticons in the chatroom\* |
| 29 | As a user, I’d like to hear little “ping” sounds whenever a message is sent |

**Non-Functional**

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| --- | --- |
| Backlog ID | Functional Requirements |
| 3 | As a user, I want to be automatically redirected to the chat room after the match is over |
| 4 | As a user, I want to have a user friendly UI with minimal clicks and redirects |
| 5 | As a user, I want the chat room to be able to support more than 2 people |

**Team Member Hours**

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| --- | --- |
| Team Member | Hours |
| Rami Bitar | 40 |
| Alex Shelley | 44 |
| James Shao | 40 |
| Rohan Swaroop | 42 |
| Yash Pujara | 44 |