



## Team Meeting Recap – April 7- 13, 1st sprint

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### April 7 – Sprint Kickoff

This was our initial sprint planning meeting. During this session:

- Tasks were allocated to team members based on initial priorities.
  - We set up **Excalidraw** for collaborative design and visual planning.
  - Muaaz introduced **Clerk**, which we will use for authentication and role management (buyer/seller/admin).
  - We discussed the sprint structure, with a focus on getting authentication and basic role-based flows operational by the end of the week.
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### April 8 – Daily Standup

Key highlights from the session:

- Pull requests were reviewed; Phutheho clarified the review process and Yanga's PR was approved.
- Tasks for Bongani were updated and aligned.
- The question of collecting buyer phone numbers was raised but postponed for a future sprint.

Individual progress:

- **Phutheho** was working on Slack integration and the buyer sign-up page.
- **Yanga** created demo login and sign-up pages and sought guidance on GitHub workflows.
- **Mpumelelo** began exploring authentication processes and familiarized himself with the Track platform.
- **Suhail** supported setup and Clerk-related configuration.

Later, Muaaz provided a walkthrough of the backend architecture, including the Express server, logging mechanism, and health checks. We simplified the review rules in the backend for clarity and maintainability.

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## April 11 – Midweek Progress Review

Updates and discussion included:

- **Yanga** demonstrated the login page and received support resolving validation errors. Route protection was explained and implemented.
- **Bongani** reported progress on seller-related routes, aiming to complete and push code over the weekend.
- **Suhail** continued developing documentation, with a focus on key flows like authentication and role assignments.
- **Phutheho** presented the buyer sign-up flow, receiving design feedback from Muaaz.

We also discussed version control practices:

- Avoid pushing directly to the `main` branch
- Follow consistent branch naming conventions (e.g., `feature/signup`)
- Use descriptive commit messages

Finally, deployment to Azure was tested successfully by Muaaz, and others were asked to confirm functionality on their end.

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## April 13 – Sprint Planning Session

This session focused on preparation for the Monday sprint review. Key points:

- Not all tickets had been updated with progress notes
- Blockers had not been consistently reported by team members

A planning session was confirmed for **Monday, April 14 (2:00 PM – 5:00 PM)**, where we will conduct:

- Sprint Review
- Retrospective
- Backlog Grooming
- Sprint Planning

Updates from the team:

- Bongani is progressing on seller-related tasks and plans to push a PR soon
- Yanga resolved issues with the folder structure
- Suhail is compiling all relevant documentation and meeting notes

Muaaz also demonstrated proper Git usage (branching, committing, and opening pull requests) using VS Code. Additionally, Clerk's role-based access control was reviewed, including how routes are protected and differentiated based on user roles (buyer/seller/admin). Middleware issues were identified and resolved.

**Action items before Monday:**

- Bongani to finalize seller routes and submit a pull request
- Phutheho to complete and push buyer-side implementation
- Yanga to record and upload a short walkthrough video
- Suhail to finalize project documentation
- Muaaz to check in with the client regarding a feedback session

## **Minutes of Meeting- 08 April 2025**

### **Meeting Type: Daily Standup**

The meeting, led by Muaaz Bayat, focused on reviewing pull requests, with Phutheho Mtloung explaining the approval process and Yanga Peter confirming approval. Following a discussion about backlog items and assigning tickets, team members Phutheho Mtloung and Yanga Peter gave their stand-up reports, detailing their work on understanding and utilizing Slack for building signup pages and creating a demo of the signup and login pages, respectively.

Yanga Peter inquired about the structure for building login functionality and the process for linking changes on GitHub, prompting Phutheho Mtloung to suggest addressing this later, after reviewing individual progress. Muaaz Bayat then addressed assigning tasks to Bongani, before the discussion returned to Yanga Peter's question about collecting buyer information—specifically phone numbers—which Phutheho Mtloung clarified is a future consideration, focusing instead on basic authorization functionality for now. Finally, Mpumelelo Ntobi reported on their progress, stating that they were busy for the day.

Mpumelelo Ntobi reviewed authentication and authorization theory and briefly explored the Track platform, planning to begin active work tomorrow. Muaaz Bayat guided Yanga Peter and Suhail Seedat on efficiently using the Clerk library for authentication, emphasizing its integration with React and the need for customized sign-in pages for different user roles. Muaaz Bayat also updated the team on progress, advising all team members to create personal projects using Clerk to familiarize themselves with the library's functionality.

Muaaz Bayat began by outlining the day's tasks, emphasizing the importance of understanding the "Clerk" system to expedite future work. Phutheho Mtloung then raised questions about database implementation, prompting discussion regarding prioritization between tutor-assigned tasks and project-specific features. The team ultimately agreed to focus on completing assigned tasks during the week and dedicating weekends to advancing their project, including deciding on database hosting.

Muaaz Bayat explained the concept of serverless PostgreSQL, contrasting it with traditional server management and virtual machines (VMs). He clarified that serverless solutions, offered by cloud providers like Google, AWS, and Azure, abstract away the complexities of server maintenance, allowing users to focus solely on their database needs. Mpumelelo Ntobi expressed understanding after Bayat's detailed explanation, which covered the evolution from local servers to cloud-based serverless options.

### **Latest Update:**

Muaaz Bayat reviewed the codebase with Mpumelelo Ntobi and Phutheho Mtloung, explaining the backend's Express app with Node.js, including a logger for production logging, and demonstrated a health check endpoint to illustrate logging functionality. Mpumelelo Ntobi had reduced the review rule to one, which Muaaz Bayat confirmed.

Apr 11, 2025

Meeting Apr 11, 2025 at 20:31 SAST

## Summary

The meeting covered project status updates, Next.js app router functionality, protected routes and middleware using Clerk, and Clerk authentication key distinctions. Muaaz Bayat provided clarifications on routing, middleware configuration, and key usage, addressing questions from Suhail Seedat, Phutheho Mtloung, Mpumelelo Ntobi, and Yanga Peter. Muaaz Bayat will provide a working example to the repository and assist the team with protected routes and user-based roles in Clerk the following day.

**Project Status Updates:** Suhail Seedat reported setting up their React project and integrating the AI key, planning to work on protected routes the following morning. Muaaz Bayat announced that the next day would be a development day, focusing on merging changes (00:00:00). Phutheho Mtloung described a problem where the page wasn't starting at the homepage (00:00:59), and Muaaz Bayat explained that this was due to protected routes (00:01:46). Mpumelelo Ntobi and Suhail Seedat had not yet worked on protected routes (00:13:29). Yanga Peter had created a sign-in page using Clerk and Next.js (00:34:06). Bongani Nhlapo stated they hadn't been able to look at Clerk authentication yet due to other commitments (00:33:01). Muaaz Bayat spent several hours on the CI/CD pipeline, aiming for automatic deployment upon pull request merging (00:29:49).

**Next.js App Router and Routing:** Muaaz Bayat explained Next.js app router functionality, demonstrating how nested folders create nested routes (00:02:43). They clarified that the naming of functions within page files does not affect routing, as long as they are exported correctly (00:06:55).

**Protected Routes and Middleware:** Phutheho Mtloung experienced issues with protected routes, initially believing their homepage wasn't protected but discovering it was in the middleware (00:01:46). Muaaz Bayat explained that by default, Clerk protects all routes, and to allow public access, specific routes need to be excluded in the middleware (00:09:07) (00:12:04). They showed how to configure the middleware to protect certain routes while leaving others public (00:10:11) (00:24:41). They emphasized the importance of understanding and debugging using documentation (00:27:40).

**Clerk Authentication and Keys:** Muaaz Bayat explained the difference between Clerk's publishable and secret keys, advising that the secret key should only be used in environment variables. Suhail Seedat asked about the distinction between publishable and secret keys (00:35:18), and Yanga Peter summarized their understanding that the publishable key is for the frontend and the secret key is for the backend. Muaaz Bayat clarified that the publishable key is shared in headers and isn't strictly private but is best practice to keep it secure (00:36:17).

**Debugging and Next Steps:** Muaaz Bayat committed to providing a working example to the repository for others to replicate (00:15:04) (00:19:17). They emphasized the importance of

learning to debug using documentation (00:27:40), and offered to assist with specific questions in the group chat (00:28:47). They also planned to help the team with protected routes and user-based roles in Clerk on the following day (00:30:33).

Meeting Time and Machine Learning Project: Yanga Peter suggested an earlier meeting time the following day, but Phutheho Mtloung explained their unavailability due to a physical meeting for their machine learning project (00:36:17). They clarified their team's presentation format, indicating that they would be presenting different sections of the project using the same slide deck (00:38:52).

Technical Questions and Clarifications: Mpumelelo Ntobi inquired about the scope of route protection, asking if it should only occur at the sign-in/sign-up stage or also within the application itself after user authentication (00:19:17). Muaaz Bayat explained that middleware sits between the client and server, handling route access based on user roles (00:20:33). They illustrated this with an example scenario, showing how a middleware function can reroute unauthenticated users (00:22:04). Suhail Seedat summarized the core function of the routes as directing users to the correct pages while denying access to unauthorized areas (00:23:32). Mpumelelo Ntobi clarified that Suhail Seedat created a React project, not a Next.js project, sparking a discussion about whether this would pose a problem, which Muaaz Bayat reassured wouldn't be a major issue (00:31:48).

### Suggested next steps

The group will merge their changes and ensure everything is together tomorrow.

Phutheho Mtloung will review the provided Next.js app router documentation and adjust their middleware to correctly protect routes, allowing access to specific pages based on user roles.

The group will review the example code provided by Muaaz Bayat and replicate it to understand how to protect routes effectively.

Muaaz Bayat will commit a clear example of protecting routes in the repo for others to follow.

Bongani Nhlapo will look into Clerk authentication after the meeting and provide an update tomorrow.

Yanga Peter will work on protecting routes in their project, aiming to complete the task tomorrow.

Apr 13, 2025

Meeting Apr 13, 2025 at 21:31 SAST

Meeting records Transcript

## Summary

The team, including Muaaz Bayat, Bongani Nhlapo, Suhail Seedat, and Yanga Peter, addressed sprint progress issues, including poor administrative practices and incomplete ticket documentation. They scheduled sprint review, retrospective, backlog refinement, and sprint planning meetings from 2 PM to 5 PM the following day to accommodate a client lab session and discussed Git workflows, deployment pipeline, and Clerk authentication, including role-based route protection. Suhail Seedat will compile meeting minutes, proofs, and documentation into a single Word document by the following day.

## Details

**Sprint Progress and Admin Issues:** Muaaz Bayat expressed concern over the team's poor administrative practices within the current sprint, noting that little progress had been made on tickets (00:00:00). They highlighted the lack of detailed documentation within tickets, emphasizing the importance of recording work progress, challenges, and requests for assistance to facilitate sprint reviews and retrospectives (00:01:10).

**Sprint Review and Backlog Refinement Scheduling:** A discussion ensued regarding the scheduling of sprint review and backlog refinement meetings in relation to a client lab session (00:03:11). The team debated whether the client's presence was required for the sprint review, with differing opinions on the standard procedure. Muaaz Bayat proposed contacting the client to clarify the scheduling requirements (00:04:15).

**Meeting Schedule Planning:** The team needed to schedule a sprint review, retrospective, backlog refinement, and sprint planning for the following day (00:05:18). They explored various scheduling scenarios, considering the client's availability and the potential need to allocate additional time before or after the lab session (00:06:22). They ultimately decided to make themselves available from 2 PM to 5 PM to accommodate the meetings (00:08:56).

**Individual Ticket Progress:** Muaaz Bayat checked in on the individual progress of each team member on their assigned tickets (00:08:56). Bongani Nhlapo reported progress on their assigned tasks, but their pull request was not yet submitted (00:10:04). Suhail Seedat and Yanga Peter discussed their ticket assignments, revealing a misunderstanding about the ticket distribution (00:11:00). Yanga Peter encountered an issue with their code, preventing them from sharing their screen (00:13:21). Muaaz Bayat asked them to provide a picture of their local directory to assist in troubleshooting (00:15:06).

**Deployment Pipeline and Git Workflow:** Muaaz Bayat explained the deployment pipeline, highlighting the processes involved in deploying code from GitHub workflows. They reviewed the understanding of pull requests (PRs) within the team, emphasizing their crucial role in managing code changes (00:16:08).

**Git Fundamentals and Version Control:** They thoroughly explained the fundamentals of Git, including cloning a repository, adding files, committing changes, and pushing updates (00:18:27). They discussed the importance of using pull requests for code review before merging into the main branch to prevent issues (00:27:17).

**Branching Strategy:** Muaaz Bayat explained the importance of branching in Git for managing different versions of the code, enabling parallel development and testing (00:30:46). They clarified how branching prevents issues from accidentally merging buggy code into the main branch, and allows for easier reverting to stable versions (00:36:02). The benefits of using feature branches for isolated development and testing were also highlighted, particularly within a CI/CD pipeline (00:39:37).

**Practical Git Demonstration:** Muaaz Bayat demonstrated a practical Git workflow, including cloning a repository, checking the current branch, creating a feature branch, and navigating directories within VS Code (00:40:33).

**Hidden Files and Directory Navigation:** They clarified the purpose of hidden files within the project directory, explaining that they manage the project's configurations and that working within the correct directory is necessary to execute commands successfully (00:41:35).

**Package Management and Routing:** They addressed a question about the difference between packages and libraries, stating they were essentially the same (00:49:47). Muaaz Bayat then demonstrated the creation of a new route for a specific user role within the application's directory structure (00:50:42).

**Clerk Authentication and User Roles:** They demonstrated the Clerk authentication system, showcasing the process of signing in with a Google account and highlighting the automatic assignment of user roles (00:53:48). They explained how user roles are managed within the application's metadata, emphasizing the validation mechanisms built into the Clerk system (00:57:32).

**Route Protection Implementation:** Muaaz Bayat explained the implementation of role-based route protection using middleware. They demonstrated how different user roles (admin, buyer, seller) are granted access to specific routes, leveraging a switch statement to simplify conditional logic. They also addressed an issue where a user could access routes they weren't authorized to (01:18:12), explaining this stemmed from the middleware not properly intercepting requests (01:19:39).

**Middleware Logic:** Bayat detailed the functionality of the middleware, which uses Clerk to manage user sessions and metadata (01:19:39). They showed how user roles, retrieved from Clerk's session data, determine route access. They explained the logic for redirecting unauthorized users to appropriate pages.

**User Interface (UI) Considerations:** Bayat discussed the design of the user interface, particularly login and navigation. They planned to create a streamlined user experience where login doesn't explicitly state the user role, and the UI adapts to show relevant options based on their role (01:22:35).

**Password Security and Clerk:** Bayat highlighted the importance of secure passwords, referencing Clerk's built-in protection against known compromised passwords from sources such as RockYou. They emphasized Clerk's role in secure authentication and authorization (01:24:39) (01:26:51).

**Admin Panel Functionality:** Bayat showed the admin panel's functionality for managing users and their roles. They demonstrated how they can update user roles within the admin panel, reflecting real-world scenarios such as approving seller requests (01:28:52).

**Pull Request Workflow:** Bayat meticulously guided the team through the process of creating and submitting pull requests, emphasizing the importance of clear commit messages (01:37:50),



creating branches for new features (01:32:00) (01:36:49), pushing changes, and using GitHub for collaboration and code review .

Code Contribution and Task Assignment: Bayat instructed team members to implement the remaining buyer and seller routes, each requiring approximately nine lines of code and the replication of existing routing mechanisms (01:30:51). They assigned specific tasks, such as Bongani handling seller routes and another member focusing on buyer routes (01:50:22).

Testing Strategy and Sprint Review: The team discussed their testing strategy, deciding to prioritize functionality over extensive testing in this sprint . Bayat stated that rigorous testing would occur later, opting to focus on user acceptance testing and relying on the reliability of the underlying libraries and infrastructure (01:46:17). The team agreed to conduct the sprint review before their client's meeting (01:48:08).

Documentation and Meeting Minutes: Bayat requested someone compile the meeting minutes, proofs, and relevant documentation into a single word document for the client , assigning the task to Suhail Seedat, who agreed to do so on the following day (01:49:33).

Deployment to Azure: Muaaz Bayat confirmed successful deployment of the application to Azure, addressing the client's expectation to evaluate the application on Azure, not just locally (01:50:22).

#### Suggested next steps

Bongani Nhlapo will push their code and create a pull request for review before the end of the sprint.

Yanga Peter will create a video demonstrating their work and addressing the issues preventing their sign-up and sign-in functionality from working correctly, and share it with the team.

Muaaz Bayat will contact the client to clarify the schedule for the sprint review and backlog refinement meetings.

The group will be available from 2 PM to 5 PM the following day on campus to complete remaining work and attend necessary meetings.

Bongani will create the pull request for the seller routes.

Phutheho Mtloung will create the pull request for the buyer routes.

Suhail Seedat will compile the meeting minutes and proofs from WhatsApp into a single Word document by tomorrow morning, ensuring all documentation is organized for the client.

The group will prepare for a meeting with the client at 2 PM tomorrow.