End Term Presentation – Cruise RMS

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Associate Software Developer Intern

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Agenda

Theoritical Backgroudn

Me

- Part of the Cruise RMS team.
- Finished an Angular Training at work.
- I intend to also work in making the UI as soon as we finish training.

My Team

- My team consists of Arun Pratap Singh, Harekishan Shivnani, Sunanda DuttaSen, Rajendra Mulgali and Omkar Chogale
- My Mentor and manager is Mr. Harekishan Shivnani.

Cruise RMS

- We are developing a new Product for IDeaS
- It involves Forecasting revenue for Cruise Companies.

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Cruise RMS

Backend

- File Processing
- Java Spring

Database

- Postgres Docker Containers
- Relational

Frontend

- Angular
- Design process ongoing in Figma

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Tasks Completed Till Date – Month 1

Demo Project	Processing Files	Designing Schema
Started with making a demo project to get a hands-on about our tech stack	Process Input files given by client.	Working with my team to design the schema, and learning in depth about it in the process.

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Month 2

Process 2 new Files	Analyze Files	Angular Training
Out of Order and Historical Pricing files need to be processed	Perform basic analysis on the file, and try to find any potential errors or edge cases it may have	Attend and learn Angular for building frontend.

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Month 3

Writing API for Forecasting	File Processing workflow	Learning about APIs
Write API calls for Forecasting Page	Try to fix logical inconsistencies in entire file to dB workflow	Learn about best practices with writing APIs and DTOs

Month 4

Writing API for Pricing And Configuration screen	Working on UI	Learning UI code practices
Write API calls for Pricing screen, along with cabin configuration screen	Writing a new screen – cabin configuration	Angular code practices, CSS, and frontend methodologies

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spring Boot

ANGULAR

Java

IJ

GitHub

Software and Applications Used

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Challenges Faced

- ✓ Database Errors and Normalization
- ✓ Test cases Failing
- ✓ Non Familiarity with Spring

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Challenges Faced

- ✓ Keeping up with Code Quality
- ✓ Build failures in github pipeline

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Challenges Faced

- ✓ Getting stuck on slightly challenging tasks
- ✓ Procrastinating difficult stories in favor of simpler ones
- ✓ Testing work on higher environments

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Challenges Faced

✓ Finding simpler solutions to problems

✓ Build failures in github pipeline

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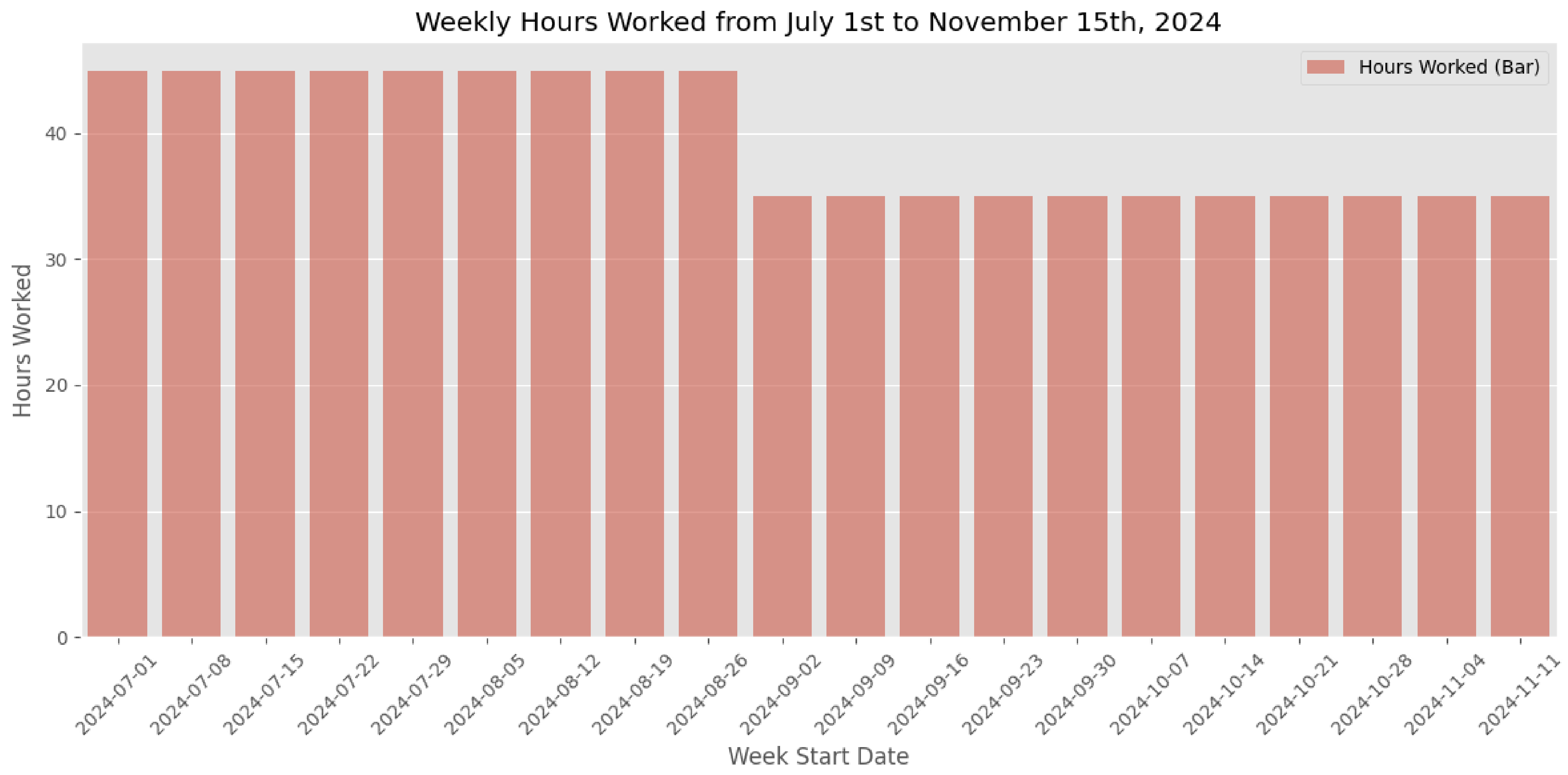
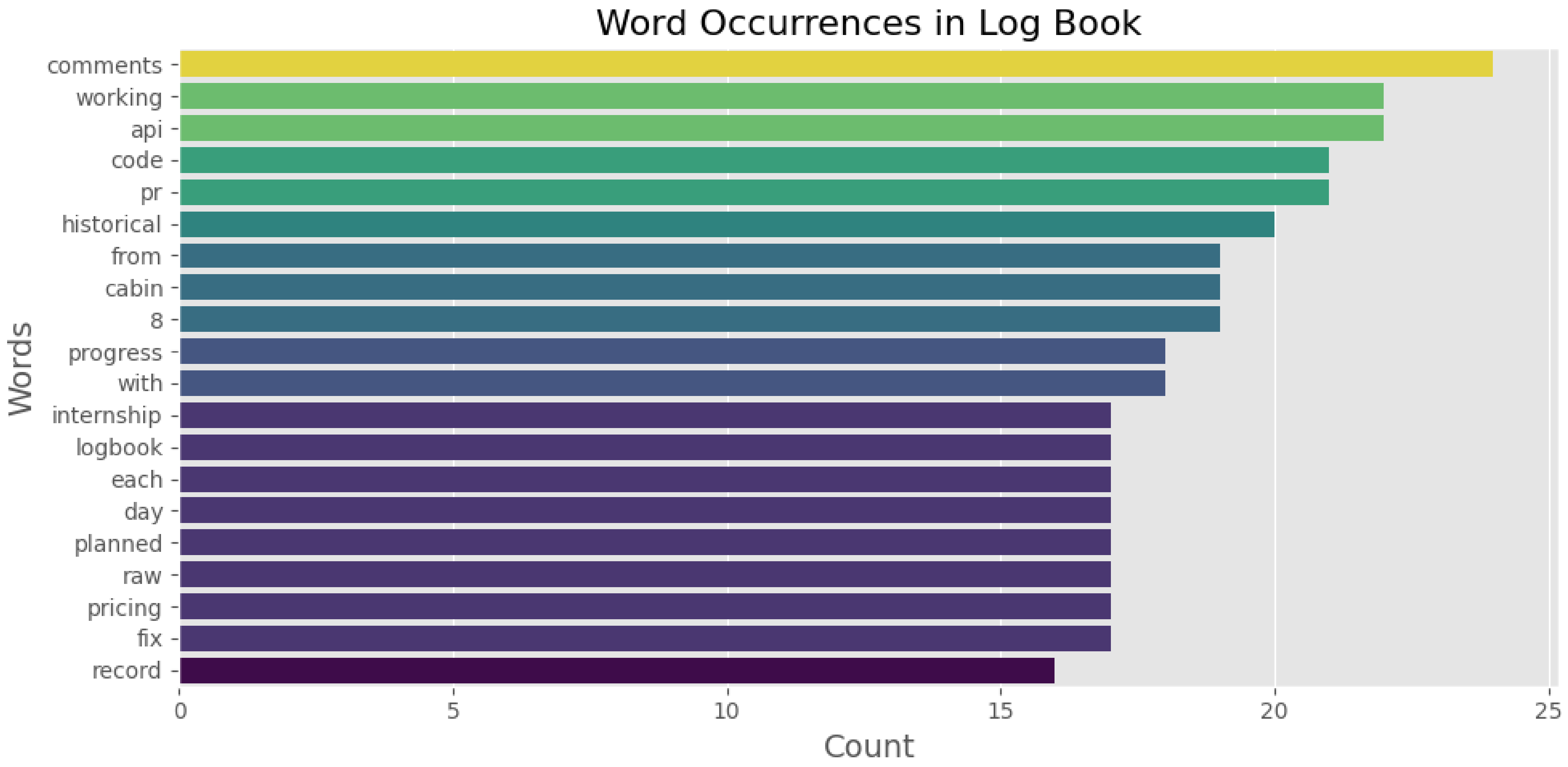
Data Collection and Analysis




Word Occurrences in Log Book
Words
Count
comments
working
api
code
pr
historical
from
cabin
8
progress
with
internship
logbook
each
day
planned
raw
pricing
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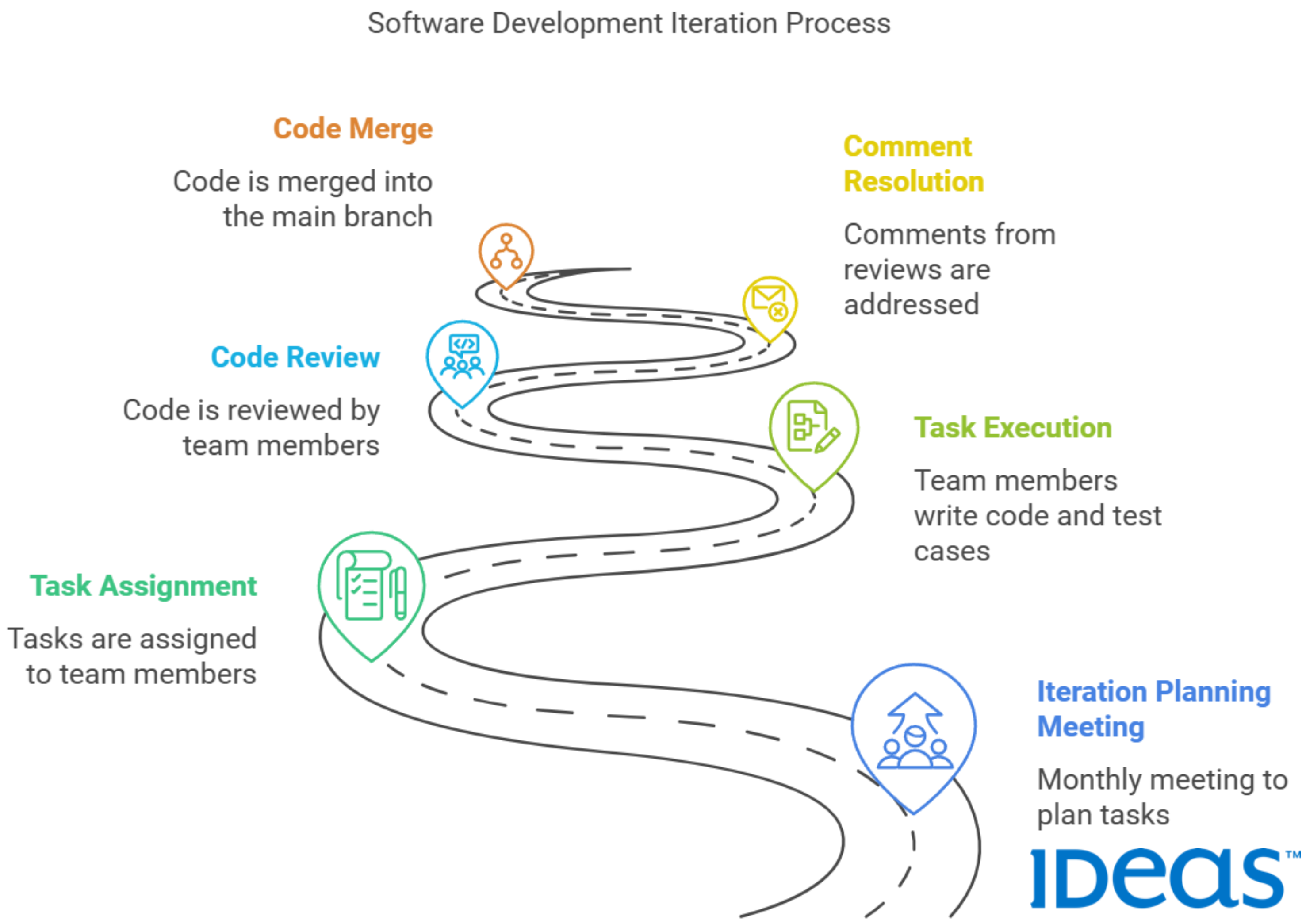
20
25

Working Methodology

1. A task is planned in a meeting held every month – Iteration planning.
2. Several tasks or stories are assigned to you in this meeting of your choice.
3. You then pick them up on a daily basis, write code for it, and then write test cases.
4. Upon finishing the "story" or task, this goes into code review and is reviewed by team members.
5. Their comments on such reviews are resolved.
6. Work of that story is considered done, when your work is merged.


Software Development Iteration Process
Code Merge
Code is merged into the main branch
Comment Resolution
Comments from reviews are addressed
Code Review
Code is reviewed by team members
Task Execution
Team members write code and test cases
Task Assignment
Tasks are assigned to team members
Iteration Planning Meeting
Monthly meeting to plan tasks

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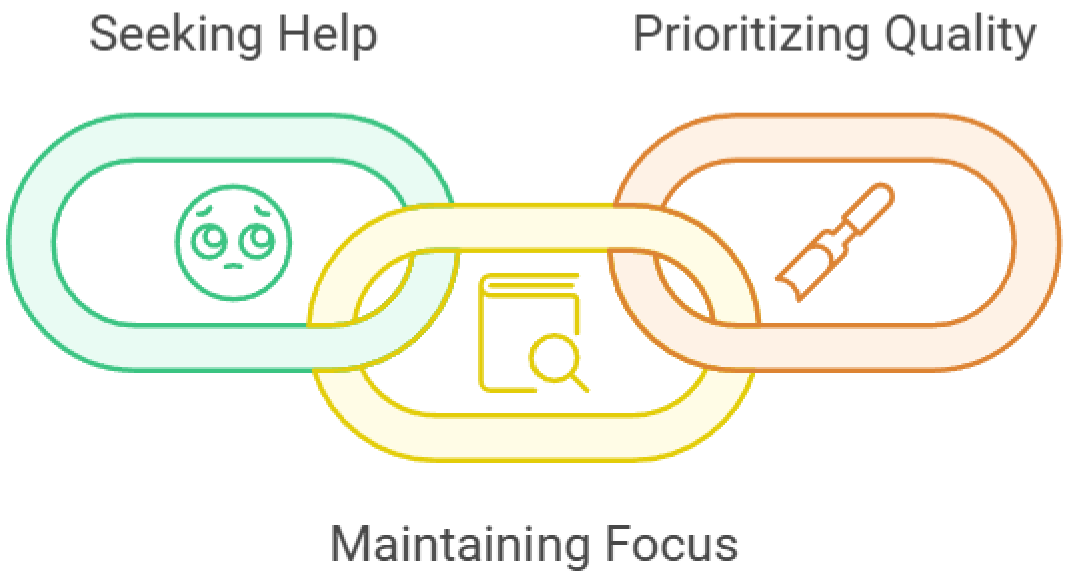
Key Suggestions

1. Do not get stuck on complicated tasks, take help and move on.
2. Do not get distracted from one task to another.
3. Try to focus on assuring better quality of code rather than rushing to completion.



Technical Learnings

1. While seemingly obvious, simpler solutions to problems are better than more complex ones.
2. Its important to know what each line and function of your code does. You can work without this too, just not as efficiently.
3. Indexes are more important in sql than we give them credit for. They are a topic worth learning deeply about.
4. Best Practices:
    1. Use constants on left side of your “=” in if statements.
    2. Use .equals or such function wherever you can as opposed to symbols.
    3. Use objects instead of primitive values. They are null safe.
    4. Try to use immutable types wherever you can.

Technical Learnings

1. When a lot of files are conflicting, instead of getting frustrated, its best to resolve it with patience, than losing it. A few patient minutes can avoid hours of work later.
2. Test your work on dev and higher environments before marking it as done.
3. Use sonar cloud, and other warnings and code checks intellij offers.
4. When writing questionable code, try to write it as close to origin of data as possible. That makes it easier to debug.
5. In using a relational database, normalization is preferred over slight complexity. Simple queries are better than joins, even if you have to make a few tables for it.

Personal Learnings

Concise Communication

Delivering succinct messages improves understanding.

Meeting Preparation

Preparing for meetings enhances clarity and focus.

Patience

Patience fosters understanding and collaboration.

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