MOSAIQ SOFTWARE

Member Handbook

November 16th, 2024

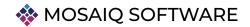# Contents

Welcome

Intro

Welcome to Mosaiq, we're glad to have you on board! Regardless of your role, there are a few key things you need to know before getting started. Make sure to thoroughly read all relevant sections of this handbook and keep it handy for future reference.

Though you are not legally an employee of Mosaiq - hence the use of the word "member" - we all strive to simulate our ideal corporate work environment and hold each other to the highest standards. Keeping an aura of professionalism in everything we do allows us to deliver high quality software and be prepared for entering the software industry post-graduation.

Key Responsibilities

Each role entails its own set of responsibilities, however, there are some responsibilities that must be carried out by all members of the organization. These include:

- Complete all key responsibilities as defined in your job description
- Maintain frequent communication with the team
- Post a daily standup report on what you did that day, any blockers you have, or anything outside of Mosaiq that is taking longer than anticipated.
    - It is perfectly normal to be busy some days, but it's important to keep everyone updated on your progress, even if it's nothing that day.
- Stay updated with the progress of your direct teammates' progress on the project through Trello cards and standups
- Track all time spent on tasks (ToT) through the Trello time tracker
    - Tracking ToT is standard in industry and used to predict how long future projects may take to complete. Accuracy here is key!
- Review the handbook and organizational rules to ensure compliance with all laws and regulations. If there is any uncertainty, contact a member of management before making a decision.
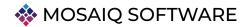
About the Organization

Legal

As of current, Mosaiq is not an incorporated business. We cannot have employees or payroll. Though, we are all still here to develop real software for the real world. To allow us to continue, we cannot hire any engineers as employees with wages, we are all in this as a hobby project. While we can use titles like "software engineer", we can't call ourselves "employees", nor can we call Mosaiq a "company" or "business". To be compliant with the law, members cannot be paid and all profits are reinvested into the organization. This must be treated as a high-commitment private membership club which simulates the structure of a software company.

Short-Term Future

The short-term goals for the team involve taking on smaller-scale projects to build up a portfolio of work and improve team members' technical skills and synergy. We may pursue a diverse array of projects both for clients and in-house ideas. The current main objective is to become a highly efficient team with experience in many technical and non-technical skills.

Long-Term Future

The long-term goals for the team involve moving from the membership club model to a for-profit business. Once we have solid infrastructure in place, a strong team of coordinated engineers, and a portfolio of work to market our abilities, we can incorporate Mosaiq as a legal entity. It will involve immense cost and effort to establish correctly as a corporation, so all plans to do so are currently mere speculation. Any major updates in regards to the organizational structure will be thoroughly communicated to the team.

Job Descriptions

Intro

Your Role

Everyone at Mosaiq is assigned a formal job description to ensure appropriate delegation of responsibilities within the structure of a software project. The responsibilities outlined in each role, however, are not an exhaustive list. Should a member want to take on more of a leadership role they are absolutely encouraged to do so.
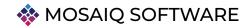
Starting a Project

Any member, at any level, can "own" a project. Regardless of title, if you would like to take on the commitment of leading a project, you can do so. For non-lead engineers, first check in with a more experienced developer to determine the scope of the project, if you think you can handle it, go for it!

Moving Around

Members are free to change their role within Mosaiq, with management approval, whether it's an existing role listed or a new role. If you would like to pitch a new job description, fill out a listing similar to those listed in this handbook and write a summary of why it would bring new value to the team. To switch your role, contact a member of management to discuss the transition.

Deep Work

Each role states how many hours of "deep work" it requires per week. Deep work means working on a task with complete undivided attention. By design, tasks such as design, research, and coding require immense concentration, thus we encourage all members to allocate undistracted time to focus. There will, naturally, be extra time each week for some overhead tasks (such as the daily standup or time tracking), but those should be insignificant. Any task that directly works towards the team goals should be documented in Trello and time tracked.

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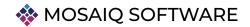## Lead Software Engineer

Description

The Lead Software Engineer will oversee the design, development, and implementation of software projects. This role requires significant time commitment. The Lead Software Engineer should understand the project's lifecycle from conception to deployment. They will guide their team, ensuring that project goals are met with high standards of quality and efficiency.

Key Responsibilities

- Lead the design and architecture of software solutions, ensuring scalability and reliability.
- Manage and mentor a team of software developers, fostering a collaborative and productive work environment.
- Oversee all phases of the software development lifecycle, including requirement analysis, design, coding, testing, and deployment.
- Collaborate with stakeholders to define project objectives, timelines, and technical requirements.
- Maintain a deep understanding of the project's progress and resolve any technical challenges that arise.
- Review and optimize code to ensure best practices and adherence to coding standards.
- Report project updates, risks, and outcomes to the team.
- Support the training of Junior Software Engineers by answering questions and guiding them with hands-on training or training videos

Expectations

- Expert knowledge in multiple programming languages and software development tools with the ability to quickly learn new tools and frameworks
- Initiative to spearhead new ideas and navigate potentially unknown solutions
- Strong problem-solving skills and the ability to make informed technical decisions.
- Excellent communication and leadership skills to effectively guide a team and interact with stakeholders.
- A proactive mindset to anticipate challenges and drive solutions efficiently.
- 15 to 25 hours of deep work per week
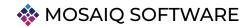
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Software Engineer 2

Description

The Software Engineer 2 will contribute to the design, development, and maintenance of software solutions. This role involves working closely with team members to consistently deliver high-quality code and meet project deadlines. The Software Engineer 2 should possess strong problem-solving skills and the ability to implement effective technical solutions.

Key Responsibilities

- Develop, test, and maintain code for various software projects.
- Collaborate with other engineers and team members to refine requirements and design solutions.
- Troubleshoot and resolve technical issues efficiently.
- Write and review code to ensure adherence to coding standards and best practices.
- Participate in code reviews to maintain code quality and consistency.
- Document development processes, changes, and updates in the codebase.

Expectations

- Strong proficiency in programming and the software development cycle with the ability to quickly learn new tools and frameworks
- Ability to work collaboratively as part of a team and communicate effectively.
- Strong attention to detail and a commitment to delivering high-quality code.
- Adaptability to changing project requirements and timelines.
- A proactive approach to learning and professional development.
- 15 to 25 hours of deep work per week
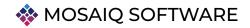
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Software Engineer 1

Description

The Software Engineer 1 will contribute to the design, development, and maintenance of software solutions. This role involves working closely with team members to deliver high-quality code and meet project deadlines. The Software Engineer 1 should possess strong problem-solving skills and the ability to implement effective technical solutions.

Key Responsibilities

- Develop, test, and maintain code for various software projects.
- Collaborate with other engineers and team members to refine requirements and design solutions.
- Troubleshoot and resolve technical issues efficiently.
- Write and review code to ensure adherence to coding standards and best practices.
- Participate in code reviews to maintain code quality and consistency.
- Document development processes, changes, and updates in the codebase.

Expectations

- Proficiency in at least 1 programming language with the ability to quickly learn new tools and frameworks
- Ability to work collaboratively as part of a team and communicate effectively.
- Strong attention to detail and a commitment to delivering high-quality code.
- Adaptability to changing project requirements and timelines.
- A proactive approach to learning and professional development.
- 5 to 15 hours of deep work per week

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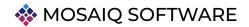
Junior Software Engineer

Description

The Junior Software Engineer role is designed for those eager to learn and grow in the field of software development. This position provides an opportunity to gain hands-on experience in coding, problem-solving, and project collaboration under the guidance of more experienced team members. The primary expectation is a strong willingness to learn and adapt quickly. The weekly time commitment is insignificant and flexible to one's own schedule.

Key Responsibilities

- Assist in the development and maintenance of software projects.
- Collaborate with team members to understand project requirements and contribute to design discussions.
- Write and test basic code, with support from senior engineers.
- Debug simple issues and learn how to troubleshoot more complex problems.
- Participate in code reviews to learn coding standards and best practices.
- Document code and project learnings to support personal and team growth.

Expectations

- Basic knowledge of at least one programming language and a proficiency in computer science concepts.
- Enthusiastic about learning new technologies and programming concepts.
- Ability to follow guidance and actively seek help when needed.
- Good communication skills and a collaborative mindset.
- Openness to feedback and a proactive approach to skill development.
- Desire to learn significant amounts of information quickly
- 2 to 8 hours of deep work per week
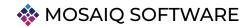
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Designer

Description

The Designer will be responsible for designing visually appealing and user-friendly interfaces for software applications and websites. This role involves conducting user research, creating wireframes and prototypes, and collaborating with developers to ensure a seamless user experience. The Designer should also be proficient in graphic design to produce necessary visual assets when needed.

Key Responsibilities

- Design and develop intuitive and aesthetically pleasing user interfaces.
- Conduct user research, usability testing, and gather feedback to inform design decisions.
- Create wireframes, mockups, and prototypes for web and mobile applications.
- Collaborate with the development team to implement design elements effectively.
- Ensure consistency in design elements and maintain a cohesive visual identity across projects.
- Produce graphics and visual content as needed to enhance user interfaces.
- Design interfaces using existing both UI libraries and custom components.

Expectations

- Strong proficiency in design tools such as Figma.
- Experience with user research methodologies and usability testing.
- Ability to balance visual design with functionality to create effective user experiences.
- Excellent communication skills and the ability to collaborate with cross-functional teams.
- A keen eye for detail and a creative approach to solving design challenges.
- Rapid turnaround time for design work.
- 0 to 10 hours per week of deep work, depending on current projects
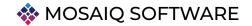
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Product Manager

Description

The Product Manager will play a dual role that combines business analysis and marketing expertise. This individual will be responsible for analyzing business data, identifying product needs and opportunities, and formulating strategies to effectively market the product to the target audience. The role requires both strategic thinking and creative execution to ensure the product's success.

Key Responsibilities

- Conduct market research and analyze business data to identify product opportunities and requirements.
- Collaborate with stakeholders to gather insights and define product specifications.
- Develop and present product strategies and business cases to the team.
- Design and implement marketing campaigns to promote products and engage users.
- Track and analyze the performance of marketing efforts, using data to optimize future campaigns.
- Work closely with the development and design teams to align product features with user needs and market trends.
- Prepare reports and presentations to communicate findings and strategies to the team.

Expectations

- Strong analytical skills with experience in data analysis and market research.
- Ability to create compelling content and messaging for product promotion.
- Excellent communication and organizational skills.
- A creative mindset with an eye for market trends and opportunities.
- Ability to work collaboratively with cross-functional teams and adapt to evolving project needs.
- Ability to be proactive in marketing and not afraid of rejection
- 10 to 20 hours per week of deep work

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Interface Engineer

Description

The Interface Engineer will be responsible for designing and developing user-centric and visually compelling interfaces for software applications and websites. This role blends design aesthetics with programming capabilities, requiring expertise in UI design, UX research, and frontend development.

Key Responsibilities

- Design and implement intuitive and visually appealing user interfaces for web and mobile applications.
- Conduct user research, usability testing, and incorporate feedback to refine design and functionality.
- Develop and maintain high quality, responsive, and interactive front end code using modern web technologies.
- Create wireframes, mockups, and prototypes, transitioning them from design concepts to functional code.
- Ensure consistency and adherence to design systems and UI/UX best practices across all projects.
- Produce visual assets and graphics as necessary to support UI components.

Expectations

- Strong skills in frontend technologies such as HTML, CSS, JavaScript, and frameworks/libraries like React or Vue.js, with the ability to learn new frameworks quickly.
- Proficiency in design tools such as Figma, with a solid understanding of design principles and user experience.
- Experience in conducting user research, usability testing, and iterating on design solutions.
- Ability to balance aesthetics and usability, making data-driven decisions to create effective user experiences.
- Adaptability to work on multiple projects and manage shifting priorities.
- 5 to 15 hours of deep work per week depending on project demands.