**Roles:** SDETs and QAEs both exist at Amazon

**Difference between the two?** SDETs role is purely into building the automation tools and/or frameworks and the interview difficulty level (or if selected the level of code you will be writing) is no less than that of Devs. Complex DSA problems + design pattern rounds. QAE role is more into manual testing, but some level of coding and automation experience is required from them as well.

**Interview Process:** Telephonic screening conducted first, followed by six on-site interview rounds. Out of six, 2 are on purely on DSA. 3rd one on debugging and testing fundamentals. 4th on design patterns (low level), 5th is managerial and 6th one is ***bar raiser*** round. Bar raiser round can be taken by anyone in the entire company and doesn’t have to be the member of the team that the position belongs to. More info on bar raiser: <https://www.jobtestprep.com/amazon-bar-raiser-interview>

**Offices in India:** Chennai, Bangalore, Gurugram

**Tips/interview experience from former SDETs at Amazon:**

* focus more on DSA. Selenium, rest assured, CI/CD. Read books [how google tests software](https://www.amazon.in/Google-Tests-Software-James-Whittaker/dp/0321803027), [how Microsoft tests](https://www.amazon.in/Test-Software-Microsoft-Best-Practices/dp/0735624259), [Clean code](https://www.amazon.com/Clean-Code-Handbook-Software-Craftsmanship/dp/0132350882), [clean architecture](https://www.amazon.in/Clean-Architecture-Craftsmans-Software-Structure/dp/0134494164), uncle bob’s youtube channel, etc.
* they give you open ended questions and then see how you approach the problem. How many and what type of questions you ask, how you explain what you are doing. whether or not you solve the problem is not important, but how you approach it is important.
* Throw as much information as you can. Show your broad spectrum of knowledge (that you understand the entire area, and there could have been multiple approach to solve this problem but you have opted for this approach because of so and so reasons) so that the interviewer submits the feedback accordingly.
* Expected duties from SDETs: Automation framework design, Code reviews, Setting up infrastructure for testing, Create new tools for automation, Fixing automation framework, etc.
* Dynamic programming. Leetcode medium
* Behavioural questions. frame your answer with STAR pattern (Situation, Task, Action, Result)
* Deepen your leaning of subjects. Approach any subject with 5W1H method (What, Why, When, Where, Who, How).

**Details from Amazon careers page (actual JDs that I could find):**

**SDET III**

We are seeking an experienced software development engineer in test. The ideal candidate is an innovative self-starter who is looking for an opportunity to be both an individual contributor and technical lead. You will be working across multiple organizations and services within Amazon to deliver the unique experience that we are creating.  
  
To be successful you need to be flexible, comfortable operating with ambiguity and willing to develop quick proof of concepts. You will drive the technology forward and operate at all levels, diving deep into the details and provide key input into the product.  
  
Key job responsibilities  
SDETs at Amazon are able to understand software internals, debug code, automate repetitive tasks, and implement new tools and frameworks needed to streamline our quality process. Our SDETs work directly with both Software Development Engineers and Quality Assurance Engineers to understand project features, review technical designs, and implement automated test tools that help deliver quality features with efficiency.  
A Software Development Engineer in Test (SDET) is a developer with the primary responsibility of writing frameworks and tools to test products. It is a very unique and challenging role and provides immense opportunity to design and develop wide-reaching tools. It combines the "building" aspect of software design engineering with the "breaking" aspect of software test engineering. You’ll be writing code that automatically verifies the quality of the product.  
  
A day in the life  
In this role, you  
  
Design and build the automated test frameworks and test suites for use in development and testing cycles  
  
Design and develop tools which will help Developers/Testers.  
  
Collaborating with development teams and your team peers to identify and prioritize opportunities for automation.  
  
Participating in design and code inspections.  
  
A successful candidate must have a solid history of delivering results, obsession with quality, be detail oriented, a team player, and have the ability to work in a fast-paced start-up like environment

BASIC QUALIFICATIONS

- 5+ years of test automation frameworks and tools building experience  
- - 10+ years of non-internship professional software development testing experience  
- - Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- - Experience in penetration testing and exploitability-focused vulnerability assessment  
- - Experience in platform-level security mitigations and hardening for Linux and Windows

PREFERRED QUALIFICATIONS

- - Knowledge of overall system architecture, scalability, reliability, and performance  
- - Experience with security in service-oriented architectures and web services

**SDET II, Alexa Voice Services**

Key job responsibilities  
As a Software Development Engineer-Test (II), you will use your passion in coding to stress prototypes and suggest design improvements to deliver superior products. You should have a combination of solid understanding of the operating system, as well as strong knowledge of object-oriented design principles. In this role, you will: • Write sophisticated SW tools and Internal Applications for devices. • Understand/write code in order to effectively work with algorithm engineers • Unit testing, Integration testing/performance testing of code/software produced • Documenting the design and Architecture flows and roadmaps.    
  
A day in the life  
As a Software Development Engineer -Test (II), you will engage with an experienced cross-disciplinary staff to conceive, design, and develop innovative Automation Framework and tool that supports AVS QA engineers. You must be responsive, flexible, and able to succeed within a collaborative peer environment. You will need to be able to work efficiently and effectively in a fun, fast-paced, dynamic team environment.  
  
BASIC QUALIFICATIONS

- 1+ years of test automation frameworks and tools building experience  
- 2+ years of non-internship professional software development testing experience  
- Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- Experience in penetration testing and exploitability-focused vulnerability assessment  
- Experience in platform-level security mitigations and hardening for Linux and Windows

PREFERRED QUALIFICATIONS

- Knowledge of overall system architecture, scalability, reliability, and performance in a database environment  
- Experience with security in service-oriented architectures and web services

# **Software Dev Engineer II - Test , Ring HW/SW**

Key job responsibilities  
Joining our team gives you the opportunity to :  
• Drive the vision and implementation of test infrastructures and frameworks that allow developers to easily write reliable tests.  
• Invent ways to ensure that every change we make can be deployed safely and quickly.  
• You will help solve our most difficult challenges, and you will coach other engineers to foster a culture of relentlessly high standards.  
  
In this role, you will:  
• Review and coordinate with automation strategy across multiple teams and layers of technology stack (OS, services, API, SDK, application, UI and end-to-end).  
• Provide patterns and examples for the team to automate tests for all types of testing (service integration tests, functionality, API/SDK, UI, performance, security, and more).  
• Assess automation efforts to look for gaps and to suggest better approaches as needed.  
• Plan and create tools to automate manual tasks, aid in operational work, and as supplements to automated testing.  
• Participate in design and code inspections.  
• Develop and deploy new test frameworks and monitoring systems.  
• Drive execution and maintenance of test frameworks, tests, and release processes.  
• Gain a deep understanding of dependencies, and how to build automation to prevent regression from upstream/cross-stream changes.

## **BASIC QUALIFICATIONS**

- 1+ years of test automation frameworks and tools building experience  
- 2+ years of non-internship professional software development testing experience  
- Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- Experience in penetration testing and exploitability-focused vulnerability assessment  
- Experience in platform-level security mitigations and hardening for Linux and Windows

## **PREFERRED QUALIFICATIONS**

- Knowledge of overall system architecture, scalability, reliability, and performance in a database environment  
- Experience with security in service-oriented architectures and web services  
- Experience with cloud technologies (AWS) will be advantageous.  
- Prior experience as a SDET/Test Automation lead strongly preferred.  
- Familiarity with testing performance across assorted network quality and conditions.  
- Excellent written and verbal communication skills with the ability to present complex technical information in a clear and concise manner to technical and non-technical leaders.  
- Experience in testing secure, multi-platform applications and/or consumer devices.  
- Demonstrated ability to mentor junior software engineers in all aspects of their engineering skill-sets.  
- Takes full ownership of end-user quality, usability and appeal

# **Senior Software Development Engineer in Test, DeviceOS**

Key job responsibilities  
Our SDETs work directly with both Software Development Engineers and Quality Assurance Engineers to understand project features, review technical designs, and implement automated test tools that help deliver quality features with efficiency. Our SDETs understand customer usage models and are able to develop test plans and test cases that approximate real-world environments and scenarios.  
  
In this role you will:  
  
• Lead the design, implementation, and delivery of test solutions using new or existing technologies that test major portions of software (e.g., significant component, set of features, applications or services) for large-scale, critical, and/or highly complex software.  
• Collaborate with development teams and your team peers to identify and prioritize opportunities for automation.  
• Define test metrics. Automate/simplify team development and test processes  
• Ensure work is consistently high quality (e.g., maintainable, reliable, efficient, etc.) and incorporates best practices.  
• Ensure code reviews tend to be rapid and uneventful. Provide useful code reviews for changes submitted by others.  
• Dive deep into our testing methodologies to transform manual quality processes to highly automated quality solutions.  
• Train new teammates about your products’ customers, what your software does, how it is constructed, tested, operated, and how it fits into the bigger picture.  
• Actively participate in the hiring process as well as mentor others - improving their skills, their knowledge of your software, and their ability to get things done.  
  
A day in the life  
A Software Development Engineer in Test (SDET) is a developer with the primary responsibility of writing frameworks and tools to test products. It is a very unique and challenging role and provides immense opportunity to design and develop wide-reaching tools. It combines the "building" aspect of software design engineering with the "breaking" aspect of software test engineering. You’ll be writing code that automatically verifies the quality of the product. You will be working closely with Product Managers, Sr. Engineers, Quality Engineers, Technical Program Managers, and highly motivated peers. You will collaborate with teams across Amazon on the planning and execution of complex and highly-technical projects with high impact and visibility.

## **BASIC QUALIFICATIONS**

- - 5+ years of test automation frameworks and tools building experience  
- - 10+ years of non-internship professional software development testing experience  
- - Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design

## **PREFERRED QUALIFICATIONS**

- - Experience in Embedded software development and test  
- - Knowledge of overall system architecture, scalability, reliability, and performance in a database environment  
- - Experience with Pytest Python testing framework

# **Software Development Engineer in Test, DeviceOS**

Same as above with few differences in the following:

## **BASIC QUALIFICATIONS**

- 1+ years of test automation frameworks and tools building experience  
- 2+ years of non-internship professional software development testing experience  
- Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- Experience in penetration testing and exploitability-focused vulnerability assessment  
- Experience in platform-level security mitigations and hardening for Linux and Windows

## **PREFERRED QUALIFICATIONS**

- 3+ years of test automation frameworks and tools building experience

# **Software Development Engineer-Test**

We are looking for a “Software Developer - Test" who is passionate to work on core system architecture and cutting-edge technologies. A Software Design Engineer in Test (SDET) at Amazon is a developer with the primary responsibility of building Tools, services and Writing Automation frameworks to test products. It is a very unique and challenging role and provides immense opportunity to design and develop wide-reaching tools. It combines the "building" aspect of software design engineering with the "breaking" aspect of software test engineering. You’ll be writing code that automatically verifies that if anything does go wrong, you’re code will tell us. That means that you potentially write more code than the developers.  
  
You will lead test automation efforts for critical and complex technical projects spanning multiple service teams and Amazon businesses. You will be responsible for driving improvements in tools, test environments and reporting mechanisms as well as influence the implementation of the right solutions.  
The ideal candidate for this role has a strong track record and proficiency in building efficient and innovative test tools. They will bring clarity to complexity, probing assumptions, illuminating pitfalls with data, and fostering shared understanding. They have specialized knowledge analyzing test procedures, inspecting architectures and developing test infrastructure and tools that provide confidence in product quality.  
  
  
Key job responsibilities  
Primary responsibilities for this role include:  
Envision, design and develop tools, frameworks and testing infrastructure to facilitate the testing by multiple teams and Amazon business. This includes analyzing requirements, assessing testability, identifying automation opportunities and implementing them for projects where the work will be run by multiple businesses in parallel.  
Lead and actively participate in design review, test planning and tools reviews, aligning teams across organization towards coherent test tool strategy.  
Lead effort towards simplifying test tools and technologies in terms of efficiency, effectiveness stability, extensibility, and scalability. Actively participate in employee hiring and development process.

## **BASIC QUALIFICATIONS**

- 4+ years of non-internship professional software development testing experience  
- Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- 1+ years of test automation frameworks and tools building experience  
- Automation experience (test, integration, build/release) in a distributed environment

## **PREFERRED QUALIFICATIONS**

- Demonstrated ability to own, design, lead and implement test strategies for complex applications and deployment topologies.

# **Software Development Engineer in Test, Alexa, Customers & Technology**

Key job responsibilities  
As a SDET in ACT organisation,  
1. You will have a significant impact in the quality and delivery speed of our software, our business, and most importantly our customers.  
2. You will design, develop, execute, and maintain software to test Alexa device software.  
3. You will work closely with developers, product managers, and other quality teams in order to ensure the features we deliver to our customers have a high level of quality.  
4. You will understand requirements and propose custom solutions to a given problem keeping the long-term vision of the organisaion in mind.  
5. You will have opportunities to understand exisiting tools and methodologies and propose improvements to the existing processes and automated tools in order to improve the speed, quality and efficiency of delivery.  
6. Champion best practices for software automation and documentation, assure designs meet requirements, and deliver exceptional-quality work on tight schedules  
  
  
A day in the life  
1. Work closely with software developers, cross functional teams and program stakeholders to understand the requirements  
2. Propose custom solutions for the problems at hand that are scalable and reusable  
3. Implement proposed solutions, validate and release  
4. Documentation of Architecture, low level design, standard operating procedures  
5. Manage stakeholder communication and ensure project on time delivery  
6. Increase automation testing to near 100% for the organisation  
  
  
**BASIC QUALIFICATIONS**

- 1+ years of test automation frameworks and tools building experience  
- 2+ years of non-internship professional software development testing experience  
- Experience programming with at least one modern language such as Java, C++, or C# including object-oriented design  
- 3+ years of experience in driving end to end test strategy, developing test plans and executing tests manually and proven track record of successful project execution

## **PREFERRED QUALIFICATIONS**

- Experience in professional, non-internship software development  
- Experience in writing unit tests and integration tests for embedded software