Amazon Q Developer Getting Started

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1 — Introduction to Amazon Q Developer 🔗

Question	Answer	Tag
What is Amazon Q Developer?	Generative AI assistant for AWS development lifecycle (coding, debugging, optimization)	AWS/Dev Tools
Where can you access Amazon Q Developer?	AWS Console, IDE extensions, AWS docs, mobile app, Slack/Teams via AWS Chatbot	AWS/Dev Tools
What are 3 key problems it solves?	1. Productivity boost 2) AWS onboarding 3) Troubleshooting	AWS/Dev Benefits
How does it help new AWS developers?	Provides AWS service guidance & Well-Architected recommendations	AWS/Onboarding
What code transformation does it support?	Java 8/11 → Java 17 upgrades	AWS/Code Migration
What are Amazon Q Developer Agents?	Autonomous helpers for multistep tasks (feature implementation, documentation)	AWS/AI Features

Question	Answer	Tag
How does it improve security?	IDE security scans for early vulnerability detection	AWS/Dev Security
What % of developer time does it target?	Reduces 70% undifferentiated work (boilerplate, tests, translations)	AWS/Productivity
What coding tasks can it assist with?	Explanation, generation, debugging, optimization, feature development	AWS/Code Assistance
How does it accelerate feature development?	Generates implementation plans with context-aware code suggestions	AWS/Code Gen

2 — Architecture and Use Cases 🔗

2.1 — Core Technical Concepts 🔗

Question	Answer	Tag
How does Amazon Q Developer assist with AWS architecture?	Provides Well-Architected patterns, solution implementations, and documentation expertise	AWS/Architecture
What AWS services can it generate ETL scripts for?	S3, DynamoDB, RDS, Redshift (via AWS Glue)	AWS/Data Processing
How does access control work?	IAM Identity Center integration with Okta/Microsoft Entra ID/Ping Identity	AWS/Security
What CLI tools does the terminal plugin support?	git, npm, docker, AWS CLI (natural language → executable code)	AWS/CLI
How does IDE customization work?	Learns from private repos to provide org-specific recommendations	AWS/IDE

2.2 — Key Use Cases 🔗

Question	Answer	Tag
How does it help in the Planning phase?	Provides targeted code explanations and business-specific documentation	SDLC/Planning
What coding assistance does it provide?	Inline code generation, debugging, optimization in IDEs/CLI	SDLC/Development

How does it improve testing?	Generates unit tests and identifies security vulnerabilities	SDLC/Testing
Which AWS services does it help operate?	S3, Lambda, EC2, EKS (troubleshooting/optimization)	SDLC/Operations
What's unique about Code Transformation?	Automated Java 8/11 → 17 upgrades	SDLC/Maintenance

2.3 — Best Practices 🔗

Question	Answer	Tag
What makes an effective prompt?	1. Specificity 2) Clear intent 3) Context 4) Examples	AI/Prompting
What context does it use in IDEs?	Current file, language, file path	AWS/IDE
How should complex tasks be handled?	Break into smaller prompts using iterative refinement	AI/Prompting
What's the key to good conversational coding?	Treat like pair programming - clarify/refine based on outputs	AI/Workflow

3 — How Do I Set Up a Development Environment to Use with Amazon Q Developer? 🔗

Question	Answer	Tag
How do you install the Amazon Q extension in VS Code?	1. Open Extensions 2) Search "Amazon Q" 3) Click Install	AWS/IDE Setup
Where does the Amazon Q icon appear after installation?	In VS Code's Activity Bar	AWS/IDE UI
What login option should you choose for first-time setup?	"Use For Free"	AWS/Authentication
Where do you find the confirmation code during login?	VS Code pop-up dialog	AWS/Authentication
How do you handle the external site verification pop-up?	1. Click "Open" or 2) Add 🔷 Cloud Computing Services - Amazon Web Services (AWS) as trusted domain	AWS/Security
What is an AWS Builder ID?	Free developer identity for AWS tools access	AWS/Authentication
What information is needed to create a Builder ID?	Email, name, verification code, password	AWS/Authentication
What permission must you grant to complete setup?	Allow "AWS IDE Extensions for VSCode" data access	AWS/Permissions
How do you know setup is complete?	VS Code shows connection confirmation	AWS/IDE UI

What should you do after seeing the browser confirmation?	Close browser tab and return to VS Code	AWS/Workflow

4 — How Do I Interact with Amazon Q Developer in Visual Studio Code? 🔗

4.1 — Basic Interaction 🔗

Question	Answer	Tag
How do you open Amazon Q Chat in VS Code?	Click Amazon Q icon in Activity Bar	AWS/IDE UI
What command starts a new conversation?	`/clear` in prompt input	AWS/Chat
How can you resize the Chat panel?	Drag separator line between panels	AWS/IDE UI

4.2 — Code Analysis 🔗

Question	Answer	Tag
How do you ask about specific code?	Right-click → "Send to Amazon Q" → "Send to prompt"	AWS/Code Help
What two code analyses were demonstrated?	1. Code explanation 2) Security audit	AWS/Code Review
How does Amazon Q present security flaws?	Lists issues + mitigation strategies	AWS/Security

4.3 — Code Modification 🔗

Question	Answer	Tag
How do you insert suggested code?	Click "Insert at cursor" in Chat panel	AWS/Code Help
What post-insertion fixes were needed?	1. Move imports 2) Adjust indentation	AWS/Workflow
How can you optimize existing code?	Right-click → "Send to Amazon Q" → "Optimize"	AWS/Code Help

4.4 — Practical Examples 🔗

Question	Answer	Tag
What optimization was suggested for validation?	Use dictionaries instead of hardcoded rules	AWS/Python

Why is dictionary approach better?	Improves maintainability for future changes	AWS/Best Practices
How do you implement optimization suggestions?	Copy from Chat → Paste over old code	AWS/Workflow

5 — How Do I Transform Code from Java 8 to Java 17 by Using Amazon Q Developer? 🔗

5.1 — Prerequisites 🔗

Question	Answer	Tag
What subscription is required for code transformation?	Amazon Q Developer Pro Tier	AWS/Pricing
Which Java versions must be installed?	Java 8 (for source) and Java 17 (target)	Java/Setup
What build tool is needed?	Apache Maven	Java/Setup

5.2 — Transformation Process 🔗

Question	Answer	Tag
How do you initiate code transformation?	Enter `/transform` in Amazon Q chat	AWS/Code Transform
What confirmation is required before starting?	Project, source version (Java 8), target version (Java 17)	AWS/Workflow
Where is progress monitored?	TRANSFORMATION HUB tab (via terminal ellipsis if not visible)	AWS/IDE UI

5.3 — Reviewing Changes 🔗

Question	Answer	Tag
What do the file status markers mean?	A=Added, M=Modified	AWS/Code Review
How are code changes displayed?	Dual-column: original (with -) vs modified (with +) lines	AWS/Code Review
What command verifies the transformed build?	`mvn clean install`	Java/Maven

5.4 — Key Features 🔗

Question	Answer	Tag
What does the transformation include?	1. Code updates 2) Dependency changes 3) Build testing	AWS/Code Transform

Question	Answer	Tag
Where does the build process occur?	In a virtual environment	AWS/Architecture
How are JDK paths handled?	Amazon Q prompts for any missing JDK locations	Java/Setup

6 — How Do I Ask Amazon Q Developer to Implement a New Feature to a Project? 🔗

6.1 — Feature Implementation Process 🔗

Question	Answer	Tag
How do you initiate feature development?	Use `/dev` command in Amazon Q chat	AWS/Feature Dev
What sample prompt creates a REST API?	"Create a RESTful API endpoint to expose functionality"	AWS/Feature Examples
What does Amazon Q do first?	Analyzes project and creates implementation plan	AWS/Workflow
How are proposed changes displayed?	As step-by-step modification plan	AWS/Code Review

6.2 — Code Review & Integration 🔗

Question	Answer	Tag
How are modified files marked?	Shown at end of folder paths in tree view	AWS/IDE UI
What do +/- indicators mean?	• = original line, + = proposed change	AWS/Code Diff
How are new files displayed?	All lines marked as additions (no comparison)	AWS/Code Diff
What confirms successful integration?	"BUILD SUCCESS" in Maven terminal	Java/Maven

6.3 — Agent Capabilities 🔗

Question	Answer	Tag
What three tasks can the agent handle?	1. Feature implementation 2) Documentation 3) Project bootstrapping	AWS/Agents
What's unique about agent workflow?	Handles complex, multi-step tasks from single prompt	AWS/AI Features
How does context awareness help?	Analyzes entire project structure before planning changes	AWS/Architecture