

## DEVOPS INTERVIEW QUESTIONS

Q1) CAN YOU TELL US THE FUNDAMENTAL DIFFERENCES BETWEEN DEVOPS & AGILE?

A: ALTHOUGH DEVOPS SHARES SOME SIMILARITIES WITH THE AGILE METHODOLOGY, WHICH IS ONE OF THE MOST POPULAR SDLC METHODOLOGIES, BOTH ARE FUNDAMENTALLY DIFFERENT APPROACHES TO SOFTWARE DEVELOPMENT. FOLLOWING ARE THE VARIOUS FUNDAMENTAL DIFFERENCES BETWEEN THE TWO:

AGILE APPROACH - THE AGILE APPROACH IS ONLY MEANT FOR DEVELOPMENT IN AGILE WHILE THE DEVOPS APPROACH IS MEANT FOR BOTH DEVELOPMENT AND OPERATIONS IN DEVOPS.

PRACTICES AND PROCESSES - WHILE AGILE INVOLVES PRACTICES SUCH AS AGILE SCRUM AND AGILE KANBAN, DEVOPS INVOLVES PROCESSES SUCH AS CD (CONTINUOUS DELIVERY), CI (CONTINUOUS INTEGRATION), AND CT (CONTINUOUS TESTING).

PRIORITY - AGILE PRIORITIZES TIMELINESS WHEREAS, DEVOPS GIVES EQUAL PRIORITY TO TIMELINESS AND QUALITY.

RELEASE CYCLES - DEVOPS OFFERS SMALLER RELEASE CYCLES WITH IMMEDIATE FEEDBACK WHILE AGILE OFFERS ONLY SMALLER RELEASE CYCLES WITHOUT IMMEDIATE FEEDBACK.

FEEDBACK SOURCE - AGILE RELIES ON FEEDBACK FROM CUSTOMERS WHILE FEEDBACK FROM SELF (MONITORING TOOLS) IS INVOLVED IN DEVOPS.

SCOPE OF WORK - FOR AGILE, THE SCOPE OF WORK IS AGILITY ONLY BUT FOR DEVOPS, IT IS AGILITY AND THE NEED FOR AUTOMATION.

Q2) WHY DO WE NEED DEVOPS?

A: ORGANIZATIONS THESE DAYS ARE TRYING TO TRANSPORT SMALL FEATURES TO CUSTOMERS VIA A SERIES OF RELEASE TRAINS INSTEAD OF RELEASING BIG FEATURE SETS. THERE ARE SEVERAL BENEFITS OF DOING SO, INCLUDING BETTER SOFTWARE QUALITY AND QUICK CUSTOMER FEEDBACK.

ALL SUCH BENEFITS LEAD TO A HIGHER LEVEL OF CUSTOMER SATISFACTION, WHICH IS THE MOST IMPORTANT GOAL FOR ANY PRODUCT DEVELOPMENT PROJECT. TO DO SO, COMPANIES NEED TO:

INCREASE DEPLOYMENT FREQUENCY

LESSEN LEAD TIME BETWEEN FIXES

LOWER FAILURE RATE OF NEW RELEASES

IN CASE OF NEW RELEASE CRASHING, HAVE A FASTER MEAN TIME TO RECOVERY

DEVOPS HELPS IN FULFILLING ALL THESE REQUIREMENTS AND THUS, ACHIEVING SEAMLESS SOFTWARE DELIVERY. FULL-FLEDGED ORGANIZATIONS LIKE AMAZON, ETSY, AND GOOGLE HAVE ADOPTED DEVOPS METHODOLOGY RESULTING IN ACHIEVING PERFORMANCE LEVELS THAT WERE PREVIOUSLY UNCHARTED.

WITH THE ADOPTION OF DEVOPS METHODOLOGY, ORGANIZATIONS ARE ABLE TO ACCOMPLISH TENS TO THOUSANDS OF DEPLOYMENTS IN A SINGLE DAY. MOREOVER, DOING SO WHILE OFFERING FIRST-RATE RELIABILITY, SECURITY, AND STABILITY.

Q3) WHAT ARE THE IMPORTANT BUSINESS AND TECHNICAL BENEFITS OF USING DEVOPS?

A: DEVOPS BRINGS A LOT OF BUSINESS AND TECHNICAL BENEFITS TO THE TABLE. SOME OF THE MOST IMPORTANT ONES ARE LISTED DOWN AS FOLLOWS:

BUSINESS BENEFITS:

ENHANCED OPERATING ENVIRONMENT STABILITY

FASTER DELIVERY OF FEATURES  
MORE TIME FOR ADDING VALUE TO THE PRODUCT  
TECHNICAL BENEFITS:

CONTINUOUS SOFTWARE DELIVERY  
FASTER PROBLEM RESOLUTION  
LESSER COMPLEX PROBLEMS

Q4) CAN YOU NAME SOME OF THE MOST-USED DEVOPS TOOLS?

A: FOLLOWING IS A LIST OF SOME OF THE MOST WIDELY USED DEVOPS TOOLS:

ANSIBLE - A CONFIGURATION MANAGEMENT AND APPLICATION DEPLOYMENT TOOL  
CHEF - A CONFIGURATION MANAGEMENT AND APPLICATION DEPLOYMENT TOOL  
DOCKER - A CONTAINERIZATION TOOL  
GIT - A VERSION CONTROL SYSTEM (VCS) TOOL  
JENKINS - A CONTINUOUS INTEGRATION (CI) TOOL  
JIRA - AN AGILE TEAM COLLABORATION TOOL  
NAGIOS - A CONTINUOUS MONITORING TOOL  
PUPPET - A CONFIGURATION MANAGEMENT AND APPLICATION DEPLOYMENT TOOL  
SELENIUM - A CONTINUOUS TESTING (CT) TOOL  
Q5) WHAT IS SELENIUM USED FOR?

A: SELENIUM IS USED FOR CONTINUOUS TESTING IN DEVOPS. THE TOOL SPECIALIZES IN FUNCTIONAL AND REGRESSION FORMS OF TESTING.

Q6) WHAT DO YOU UNDERSTAND BY PUPPET IN DEVOPS?

A: IT IS A CONFIGURATION MANAGEMENT TOOL THAT IS USED FOR AUTOMATING ADMINISTRATION TASKS. PUPPET MAKES USE OF THE MASTER-SLAVE ARCHITECTURE IN WHICH THE TWO ENTITIES COMMUNICATE VIA AN ENCRYPTED CHANNEL.

SYSTEM ADMINS NEED TO PERFORM A LOT OF REPETITIVE TASKS, NOTABLY INSTALLING AND CONFIGURING SERVERS. WRITING SCRIPTS FOR AUTOMATING SUCH TASKS IS AN OPTION BUT IT BECOMES HECTIC WHEN THE INFRASTRUCTURE IS LARGE. CONFIGURATION MANAGEMENT IS A GREAT WORKAROUND FOR THIS.

PUPPET HELPS IN CONFIGURING, DEPLOYING, AND MANAGING SERVERS. NOT ONLY DOES IT MAKE SUCH REDUNDANT TASKS EASIER BUT ALSO CUTS A SIGNIFICANT PORTION OF THE TOTAL WORK TIME. THE MATURE CONFIGURATION MANAGEMENT TOOL:

CONTINUOUSLY CHECKS WHETHER THE NEEDED CONFIGURATION FOR A HOST IS IN PLACE OR NOT. IF ALTERED, THE CONFIGURATION IS AUTOMATICALLY REVERTED BACK  
DEFINES DISTINCT CONFIGURATIONS FOR EVERY HOST  
DOES DYNAMIC SCALING (UP AND DOWN) OF MACHINES  
PROVIDES CONTROL OVER ALL THE CONFIGURED MACHINES SO THAT A CENTRALIZED CHANGE CAN AUTOMATICALLY GET PROPAGATED TO ALL OF THEM

Q7) WHAT DO YOU UNDERSTAND BY ANTI-PATTERNS OF DEVOPS?

A: WHEN A DEVOPS PATTERN COMMONLY ADOPTED BY OTHER ORGANIZATIONS DOESN'T WORK IN A SPECIFIC CONTEXT AND STILL THE ORGANIZATION CONTINUES USING IT, IT LEADS TO THE ADOPTION OF AN ANTI-PATTERN. IN OTHER WORDS, ANTI-PATTERNS ARE MYTHS ABOUT DEVOPS. SOME OF THE NOTABLE ANTI-PATTERNS ARE:

AN ORGANIZATION NEEDS TO HAVE A SEPARATE DEVOPS GROUP  
AGILE EQUALS DEVOPS  
DEVOPS IS A PROCESS  
DEVOPS IS DEVELOPMENT-DRIVEN RELEASE MANAGEMENT  
DEVOPS IS NOT POSSIBLE BECAUSE THE ORGANIZATION IS UNIQUE  
DEVOPS IS NOT POSSIBLE BECAUSE THE PEOPLE AVAILABLE ARE UNSUITABLE  
DEVOPS MEANS DEVELOPERS MANAGING PRODUCTION

DEVOPS WILL SOLVE ALL PROBLEMS

FAILING TO INCLUDE ALL ASPECTS OF THE ORGANIZATION IN AN ONGOING DEVOPS TRANSITION  
NOT DEFINING KPIS AT THE START OF A DEVOPS TRANSITION

REDUCE THE SILO-BASED ISOLATION OF DEVELOPMENT AND OPERATIONS WITH A NEW DEVOPS  
TEAM THAT SILOS ITSELF FROM OTHER PARTS OF THE ORGANIZATION

Q8) DEVOPS HAS SOMETHING CALLED CI. WHAT IS IT AND WHAT IS ITS PURPOSE?

A: CI IN DEVOPS STANDS FOR CONTINUOUS INTEGRATION. CI IS A DEVELOPMENT PRACTICE IN  
WHICH DEVELOPERS INTEGRATE CODE INTO A SHARED REPOSITORY MULTIPLE TIMES IN A SINGLE  
DAY.

CONTINUOUS INTEGRATION OF DEVELOPMENT AND TESTING ENHANCES THE QUALITY OF THE  
SOFTWARE AS WELL AS REDUCING THE TOTAL TIME REQUIRED FOR DELIVERY.

THE DEVELOPER HAS BROKEN THE BUILD IF A TEAM MEMBER CHECKING IN CODE RUNS INTO A  
COMPILATION FAILURE. AS SUCH, OTHER DEVELOPERS ARE NOT ABLE TO SYNC WITH THE SHARED  
SOURCE CODE REPOSITORY WITHOUT INTRODUCING COMPILATION ERRORS INTO THEIR OWN  
WORKSPACES.

THIS DISRUPTS THE COLLABORATIVE AND SHARED DEVELOPMENT PROCESS. HENCE, AS SOON AS A  
CI BUILD BREAKS, IT'S IMPORTANT TO IDENTIFY AND CORRECT THE PROBLEM IMMEDIATELY.

TYPICALLY, A CI PROCESS INCLUDES A SUITE OF UNIT, INTEGRATION, AND REGRESSION TESTS  
THAT RUN EACH TIME THE COMPILATION SUCCEEDS. IN CASE ANY OF THE AFORESAID TESTS  
FAIL, THE CI BUILD IS CONSIDERED UNSTABLE (WHICH IS COMMON DURING AN AGILE SPRINT  
WHEN DEVELOPMENT IS ONGOING) AND NOT BROKEN.

Q9) MORE OFTEN THAN NOT WE HEAR SHIFT LEFT IN DEVOPS. WHAT IS IT?

A: THE TRADITIONAL SOFTWARE DEVELOPMENT LIFECYCLE WHEN GRAPHED ON A PAPER HAS TWO  
SIDES, LEFT AND RIGHT. WHILE THE LEFT SIDE OF THE GRAPH INCLUDES DESIGN AND  
DEVELOPMENT, THE RIGHT SIDE INCLUDES PRODUCTION STAGING, STRESS TESTING, AND USER  
ACCEPTANCE.

TO SHIFT LEFT IN DEVOPS SIMPLY MEANS THE NECESSITY OF TAKING AS MANY TASKS ON THE  
RIGHT I.E. THAT TYPICALLY HAPPENS TOWARD THE END OF THE APPLICATION DEVELOPMENT  
PROCESS AND INCORPORATE THEM INTO EARLIER STAGES OF A DEVOPS METHODOLOGY.

THERE ARE SEVERAL WAYS OF ACCOMPLISHING A SHIT LEFT IN DEVOPS, MOST NOTABLY:  
CREATE PRODUCTION-READY ARTIFACTS AT THE END OF EVERY AGILE SPRINT  
INCORPORATING STATIC CODE ANALYSIS ROUTINES IN EVERY BUILD  
THE LEVEL OF DOING THE DEVOPS THE RIGHT WAY IS DIRECTLY DEPENDENT ON THE DEGREE OF  
SHIFTING LEFT AS MUCH AS POSSIBLE.

Q10) WHAT DOES CAMS IN DEVOPS STAND FOR?

A: THE ACRONYM CAMS IS USUALLY USED FOR DESCRIBING THE CORE CREEDS OF DEVOPS  
METHODOLOGY. IT STANDS FOR:

CULTURE

AUTOMATION

MEASUREMENT

SHARING

Q11) WHAT ARE THE SEVERAL KPIS USED TO GAUGE DEVOPS SUCCESS?

A: KPIS IS A CONTRACTED FORM OF KEY PERFORMANCE INDICATORS. IN ORDER TO MEASURE THE SUCCESS OF A DEVOPS PROCESS, SEVERAL KPIS CAN BE USED. SOME OF THE MOST POPULAR ONES ARE:

APPLICATION PERFORMANCE

APPLICATION USAGE AND TRAFFIC

THE AUTOMATED TEST PASS PERCENTAGE

AVAILABILITY

CHANGE VOLUME

CUSTOMER TICKETS

DEFECT ESCAPE RATE

DEPLOYMENT FREQUENCY

DEPLOYMENT TIME

ERROR RATES

FAILED DEPLOYMENTS

LEAD TIME

MEANTIME TO DETECTION (MTTD)

MEAN TIME TO RECOVERY (MTTR)

Q12) IN YOUR OPINION, WHAT ARE THE MAJOR BENEFITS OF IMPLEMENTING DEVOPS AUTOMATION?

A: FOLLOWING ARE THE MAJOR BENEFITS OF IMPLEMENTING DEVOPS AUTOMATION:

REMOVAL OF THE POSSIBILITY OF HUMAN ERROR FROM THE CD EQUATION (CORE BENEFIT)

AS TASKS BECOME MORE PREDICTABLE AND REPEATABLE, IT IS EASY TO IDENTIFY AND CORRECT WHEN SOMETHING GOES WRONG. HENCE, IT RESULTS IN PRODUCING MORE RELIABLE AND ROBUST SYSTEMS

REMOVES BOTTLENECKS FROM THE CI PIPELINE. IT RESULTS IN INCREASED DEPLOYMENT FREQUENCY AND DECREASED NUMBER OF FAILED DEPLOYMENTS. BOTH OF THEM ARE IMPORTANT DEVOPS KPIS

Q13) WHAT DO YOU UNDERSTAND BY CONTAINERS?

A: CONTAINERS ARE A FORM OF LIGHTWEIGHT VIRTUALIZATION THAT HELP IN PROVIDING ISOLATION AMONG PROCESSES. CONTAINERS ARE HEAVIER THAN A CHROOT BUT LIGHTER THAN A HYPERVISOR.

Q14) MICROSERVICES ARE A CORE PART OF DEVOPS. CAN YOU NAME ANY TWO POPULAR JAVA DEVELOPMENT FRAMEWORKS FOR CREATING MICROSERVICES?

A: THERE ARE SEVERAL JAVA FRAMEWORKS THAT ALLOW CREATING MICROSERVICES. HOWEVER, ECLIPSE MICROPROFILE AND SPRING BOOT STAND OUT FROM THE HERD AS THE TWO LEADING JAVA DEVELOPMENT FRAMEWORKS USED IN DEVOPS FOR CREATING MICROSERVICES.

Q15) WHAT DO YOU UNDERSTAND BY A VERSION CONTROL SYSTEM (VCS)? DEFINE ITS USES.

A: A VERSION CONTROL SYSTEM OR VCS IS A SYSTEM THAT IS CAPABLE OF RECORDING CHANGES MADE TO A FILE OR A GROUP OF FILES OVER TIME. GIT AND MERCURIAL ARE TWO OF THE MOST POPULAR VERSION CONTROL SYSTEMS. IMPORTANT USES OF A VCS ARE:

CHECK WHAT WAS THE LAST MODIFICATION THAT CAUSED A PROBLEM

COMPARE THE CHANGES MADE OVER TIME

IDENTIFYING WHO INTRODUCED A NEW ISSUE AND AT WHAT TIME

REVERT A FILE OR FILES TO SOME EARLIER STATE

REVERT THE COMPLETE PROJECT TO A PREVIOUS STATE

Q16) GIT IS A POPULAR DEVOPS TOOL. TELL US HOW YOU WILL REVERT A COMMIT THAT HAS ALREADY BEEN PUSHED AND MADE PUBLIC.

A: THERE ARE TWO WAYS OF DOING SO:

BY CREATING A NEW COMMIT TO UNDO ALL CHANGES MADE BY THE COMMIT THAT HAS ALREADY BEEN PUSHED AND MADE PUBLIC. FOLLOWING COMMAND IS USED FOR DOING SO:

GIT REVERT

BY FIXING OR REMOVING THE BAD FILE IN A NEW COMMIT AND THEN PUSHING IT TO THE REMOTE REPOSITORY. AFTER MAKING NECESSARY CHANGES TO THE FILE, COMMIT IT TO THE REMOTE REPOSITORY USING THE COMMAND:

GIT COMMIT -M "COMMIT MESSAGE"

Q17) WHAT ARE POST MORTEM MEETINGS?

A: MANY TIMES THERE IS A NEED TO DISCUSS WHAT WENT WRONG DURING A DEVOPS PROCESS. FOR THIS, POST MORTEM MEETINGS ARE ARRANGED. THESE MEETINGS YIELD STEPS THAT SHOULD BE TAKEN TO AVOID THE SAME FAILURE OR SET OF FAILURES IN THE FUTURE FOR WHICH THE MEETING WAS ARRANGED IN THE FIRST PLACE.

Q18) DRAW A COMPARISON BETWEEN ASSET MANAGEMENT AND CONFIGURATION MANAGEMENT.

A: THE PROCESS OF MONITORING AS WELL AS MAINTAINING THINGS OF VALUE TO AN ENTITY OR GROUP IS CALLED AN ASSET MANAGEMENT.

CONFIGURATION MANAGEMENT REFERS TO THE PROCESS OF CONTROLLING, IDENTIFYING, PLANNING FOR, AND VERIFYING THE CONFIGURATION ITEMS WITHIN SERVICE IN SUPPORT OF CHANGE MANAGEMENT.

Q19) CAN YOU STATE AND EXPLAIN VARIOUS KEY ELEMENTS OF CONTINUOUS TESTING?

A: VARIOUS KEY ELEMENTS OF CONTINUOUS TESTING ARE:

ADVANCED ANALYSIS - USED FOR FORECASTING AND PREDICTING UNKNOWN FUTURE EVENTS

POLICY ANALYSIS - MEANT FOR IMPROVING THE TESTING PROCESS

REQUIREMENT TRACEABILITY - REFERS TO THE ABILITY TO DESCRIBE AS WELL AS FOLLOW THE LIFE OF A REQUIREMENT, FROM ITS ORIGIN TO DEPLOYMENT

RISK ASSESSMENT - THE METHOD OR PROCESS OF IDENTIFYING HAZARDS AND RISK FACTORS THAT CAN CAUSE POTENTIAL DAMAGE

SERVICE VIRTUALIZATION - ALLOWS USING VIRTUAL SERVICES INSTEAD OF PRODUCTION SERVICES. EMULATES SOFTWARE COMPONENTS FOR SIMPLE TESTING

TEST OPTIMIZATION - IMPROVE THE OVERALL TESTING PROCESS

Q20) PLEASE EXPLAIN THE CORE OPERATIONS OF DEVOPS IN TERMS OF DEVELOPMENT AND

INFRASTRUCTURE.

A: CORE OPERATIONS OF DEVOPS IN TERMS OF DEVELOPMENT AND INFRASTRUCTURE ARE:

APPLICATION DEVELOPMENT – DEVELOPING A PRODUCT THAT IS ABLE TO MEET ALL CUSTOMER REQUIREMENTS AND OFFERS A REMARKABLE LEVEL OF QUALITY

CODE COVERAGE – MEASUREMENT OF THE TOTAL NUMBER OF BLOCKS OR LINES OR ARCS OF THE CODE EXECUTED WHILE THE AUTOMATED TESTS ARE RUNNING

CODE DEVELOPING – PREPARE THE CODE BASE REQUIRED FOR THE PRODUCT DEVELOPMENT

CONFIGURATION – ALLOWING THE PRODUCT TO BE USED IN AN OPTIMUM WAY

DEPLOYMENT – INSTALLING THE SOFTWARE TO BE USED BY THE END-USER

ORCHESTRATION – ARRANGEMENT OF SEVERAL AUTOMATED TASKS

PACKAGING – ACTIVITIES INVOLVED WHEN THE RELEASE IS READY FOR DEPLOYMENT

PROVISIONING – ENSURING THAT THE INFRASTRUCTURE CHANGES ARRIVE JUST-IN-TIME WITH THE CODE THAT REQUIRES IT

UNIT TESTING – MEANT FOR TESTING INDIVIDUAL UNITS OR COMPONENTS

Q21) WHAT DO YOU KNOW ABOUT DEVOPS?

YOUR ANSWER MUST BE SIMPLE AND STRAIGHTFORWARD. BEGIN BY EXPLAINING THE GROWING IMPORTANCE OF DEVOPS IN THE IT INDUSTRY. DISCUSS HOW SUCH AN APPROACH AIMS TO SYNERGIZE THE EFFORTS OF THE DEVELOPMENT AND OPERATIONS TEAMS TO ACCELERATE THE DELIVERY OF SOFTWARE PRODUCTS, WITH A MINIMAL FAILURE RATE. INCLUDE HOW DEVOPS IS A VALUE-ADDED PRACTICE, WHERE DEVELOPMENT AND OPERATIONS ENGINEERS JOIN HANDS THROUGHOUT THE PRODUCT OR SERVICE LIFECYCLE, RIGHT FROM THE DESIGN STAGE TO THE POINT OF DEPLOYMENT.

Q22) WHY HAS DEVOPS GAINED PROMINENCE OVER THE LAST FEW YEARS?

BEFORE TALKING ABOUT THE GROWING POPULARITY OF DEVOPS, DISCUSS THE CURRENT INDUSTRY SCENARIO. BEGIN WITH SOME EXAMPLES OF HOW BIG PLAYERS SUCH AS NETFLIX AND FACEBOOK ARE INVESTING IN DEVOPS TO AUTOMATE AND ACCELERATE APPLICATION DEPLOYMENT AND HOW THIS HAS HELPED THEM GROW THEIR BUSINESS. USING FACEBOOK AS AN EXAMPLE, YOU WOULD POINT TO FACEBOOK'S CONTINUOUS DEPLOYMENT AND CODE OWNERSHIP MODELS AND HOW THESE HAVE HELPED IT SCALE UP BUT ENSURE THE QUALITY OF EXPERIENCE AT THE SAME TIME. HUNDREDS OF LINES OF CODE ARE IMPLEMENTED WITHOUT AFFECTING QUALITY, STABILITY, AND SECURITY.

YOUR NEXT USE CASE SHOULD BE NETFLIX. THIS STREAMING AND ON-DEMAND VIDEO COMPANY FOLLOW SIMILAR PRACTICES WITH FULLY AUTOMATED PROCESSES AND SYSTEMS. MENTION THE USER BASE OF THESE TWO ORGANIZATIONS: FACEBOOK HAS 2 BILLION USERS WHILE NETFLIX STREAMS ONLINE CONTENT TO MORE THAN 100 MILLION USERS WORLDWIDE.

THESE ARE GREAT EXAMPLES OF HOW DEVOPS CAN HELP ORGANIZATIONS TO ENSURE HIGHER SUCCESS RATES FOR RELEASES, REDUCE THE LEAD TIME BETWEEN BUG FIXES, STREAMLINE AND CONTINUOUS DELIVERY THROUGH AUTOMATION, AND AN OVERALL REDUCTION IN MANPOWER COSTS.

Q23) WHICH ARE SOME OF THE MOST POPULAR DEVOPS TOOLS? DO YOU HAVE EXPERIENCE WORKING WITH ANY OF THESE TOOLS?

THE MORE POPULAR DEVOPS TOOLS INCLUDE:

SELENIUM

PUPPET

CHEF

GIT

JENKINS

ANSIBLE

DOCKER

Q24) DO YOU WANT TO MASTER ALL THESE DEVOPS TOOLS?

THOROUGHLY DESCRIBE ANY TOOLS THAT YOU ARE CONFIDENT ABOUT, WHAT IT'S ABILITIES ARE AND WHY YOU PREFER USING IT. FOR EXAMPLE, IF YOU HAVE EXPERTISE IN GIT, YOU WOULD TELL THE INTERVIEWER THAT GIT IS A DISTRIBUTED VERSION CONTROL SYSTEM (VCS) TOOL THAT ALLOWS THE USER TO TRACK FILE CHANGES AND REVERT TO SPECIFIC CHANGES WHEN REQUIRED. DISCUSS HOW GIT'S DISTRIBUTED ARCHITECTURE GIVES IT AN ADDED EDGE WHERE DEVELOPERS MAKE CHANGES LOCALLY AND CAN HAVE THE ENTIRE PROJECT HISTORY ON THEIR LOCAL GIT REPOSITORIES, WHICH CAN BE LATER SHARED WITH OTHER TEAM MEMBERS.

Q25) WHAT IS VERSION CONTROL AND WHY SHOULD VCS BE USED?

DEFINE VERSION CONTROL AND TALK ABOUT HOW THIS SYSTEM RECORDS ANY CHANGES MADE TO ONE OR MORE FILES AND SAVES THEM IN A CENTRALIZED REPOSITORY. VCS TOOLS WILL HELP YOU RECALL PREVIOUS VERSIONS AND PERFORM THE FOLLOWING:

GO THROUGH THE CHANGES MADE OVER A PERIOD OF TIME AND CHECK WHAT WORKS VERSUS WHAT DOESN'T.

REVERT SPECIFIC FILES OR SPECIFIC PROJECTS BACK TO AN OLDER VERSION.  
EXAMINE ISSUES OR ERRORS THAT HAVE OCCURRED DUE TO A PARTICULAR CHANGE  
USING VCS GIVES DEVELOPERS THE FLEXIBILITY TO SIMULTANEOUSLY WORK ON A PARTICULAR FILE AND ALL MODIFICATIONS CAN BE LOGICALLY COMBINED LATER.

Q26) IS THERE A DIFFERENCE BETWEEN AGILE AND DEVOPS? IF YES, PLEASE EXPLAIN.

AS A DEVOPS ENGINEER, INTERVIEW QUESTIONS LIKE THIS ARE QUITE EXPECTED. START BY DESCRIBING THE OBVIOUS OVERLAP BETWEEN DEVOPS AND AGILE. ALTHOUGH THE IMPLEMENTATION OF DEVOPS IS ALWAYS IN SYNC WITH AGILE METHODOLOGIES, THERE IS A CLEAR DIFFERENCE BETWEEN THE TWO. THE PRINCIPLES OF AGILE ARE ASSOCIATED WITH SEAMLESS PRODUCTION OR DEVELOPMENT OF A PIECE OF SOFTWARE. ON THE OTHER HAND, DEVOPS DEALS WITH THE DEVELOPMENT, FOLLOWED BY DEPLOYMENT OF THE SOFTWARE, ENSURING FASTER TURNAROUND TIME, MINIMUM ERRORS, AND RELIABILITY.

Q27) WHY ARE CONFIGURATION MANAGEMENT PROCESSES AND TOOLS IMPORTANT?

TALK ABOUT MULTIPLE SOFTWARE BUILDS, RELEASES, REVISIONS, AND VERSIONS FOR EACH SOFTWARE OR TESTWARE THAT IS BEING DEVELOPED. MOVE ON TO EXPLAIN THE NEED FOR STORING AND MAINTAINING DATA, KEEPING TRACK OF DEVELOPMENT BUILDS AND SIMPLIFIED TROUBLESHOOTING. DON'T FORGET TO MENTION THE KEY CM TOOLS THAT CAN BE USED TO ACHIEVE THESE OBJECTIVES. TALK ABOUT HOW TOOLS LIKE PUPPET, ANSIBLE, AND CHEF HELP IN AUTOMATING SOFTWARE DEPLOYMENT AND CONFIGURATION ON SEVERAL SERVERS.

Q28) HOW IS CHEF USED AS A CM TOOL?

THE CHEF IS CONSIDERED TO BE ONE OF THE PREFERRED INDUSTRY-WIDE CM TOOLS. FACEBOOK MIGRATED ITS INFRASTRUCTURE AND BACKEND IT TO THE CHEF PLATFORM, FOR EXAMPLE. EXPLAIN HOW CHEF HELPS YOU TO AVOID DELAYS BY AUTOMATING PROCESSES. THE SCRIPTS ARE WRITTEN IN RUBY. IT CAN INTEGRATE WITH CLOUD-BASED PLATFORMS AND CONFIGURE NEW SYSTEMS. IT PROVIDES MANY LIBRARIES FOR INFRASTRUCTURE DEVELOPMENT THAT CAN LATER BE DEPLOYED WITHIN A SOFTWARE. THANKS TO ITS CENTRALIZED MANAGEMENT SYSTEM, ONE CHEF SERVER IS ENOUGH TO BE USED AS THE CENTER FOR DEPLOYING VARIOUS POLICIES.

Q29) HOW WOULD YOU EXPLAIN THE CONCEPT OF "INFRASTRUCTURE AS CODE"(IAC)?

IT IS A GOOD IDEA TO TALK ABOUT IAC AS A CONCEPT, WHICH IS SOMETIMES REFERRED TO AS A PROGRAMMABLE INFRASTRUCTURE, WHERE INFRASTRUCTURE IS PERCEIVED IN THE SAME WAY AS ANY OTHER CODE. DESCRIBE HOW THE TRADITIONAL APPROACH TO MANAGING INFRASTRUCTURE IS TAKING A BACK SEAT AND HOW MANUAL CONFIGURATIONS, OBSOLETE TOOLS, AND CUSTOM SCRIPTS ARE BECOMING LESS RELIABLE. NEXT, ACCENTUATE THE BENEFITS OF IAC AND HOW CHANGES TO IT INFRASTRUCTURE CAN BE IMPLEMENTED IN A FASTER, SAFER AND EASIER MANNER USING IAC. INCLUDE THE OTHER BENEFITS OF IAC LIKE APPLYING REGULAR UNIT TESTING AND INTEGRATION TESTING TO INFRASTRUCTURE CONFIGURATIONS, AND MAINTAINING UP-TO-DATE INFRASTRUCTURE DOCUMENTATION.

IF YOU HAVE COMPLETED A CERTIFICATION ON AMAZON WEB SERVICES (AWS), AND ARE INTERVIEWING FOR NICHE ROLES SUCH AS AWS-CERTIFIED DEVOPS ENGINEER, HERE ARE SOME AWS DEVOPS INTERVIEW QUESTIONS THAT YOU MUST BE PREPARED FOR:

Q30) WHAT IS THE ROLE OF AWS IN DEVOPS?

WHEN ASKED THIS QUESTION IN AN INTERVIEW, GET STRAIGHT TO THE POINT BY EXPLAINING THAT AWS IS A CLOUD-BASED SERVICE PROVIDED BY AMAZON THAT ENSURES SCALABILITY THROUGH UNLIMITED COMPUTING POWER AND STORAGE. AWS EMPOWERS IT ENTERPRISES TO DEVELOP AND DELIVER SOPHISTICATED PRODUCTS AND DEPLOY APPLICATIONS ON THE CLOUD. SOME OF ITS KEY SERVICES INCLUDE AMAZON CLOUDFRONT, AMAZON SIMPLEDB, - - - AMAZON RELATIONAL DATABASE SERVICE, AND AMAZON ELASTIC COMPUTER CLOUD. DISCUSS THE VARIOUS CLOUD PLATFORMS AND EMPHASIZE ANY BIG DATA PROJECTS THAT YOU HAVE HANDLED IN THE PAST USING CLOUD INFRASTRUCTURE.

Q31) HOW IS IAC IMPLEMENTED USING AWS?

START BY TALKING ABOUT THE AGE-OLD MECHANISMS OF WRITING COMMANDS ONTO SCRIPT FILES AND TESTING THEM IN A SEPARATE ENVIRONMENT BEFORE DEPLOYMENT AND HOW THIS APPROACH IS BEING REPLACED BY IAC. SIMILAR TO THE CODES WRITTEN FOR OTHER SERVICES, WITH THE HELP OF AWS, IAC ALLOWS DEVELOPERS TO WRITE, TEST, AND MAINTAIN INFRASTRUCTURE ENTITIES IN A DESCRIPTIVE MANNER, USING FORMATS SUCH AS JSON OR YAML. THIS ENABLES EASIER DEVELOPMENT AND FASTER DEPLOYMENT OF INFRASTRUCTURE CHANGES.

GO THROUGH THIS SIMPLILEARN VIDEO ON "DEVOPS INTERVIEW QUESTIONS" DELIVERED BY OUR DEVOPS CERTIFICATION EXPERT THAT WILL HELP YOU CRACK ANY INTERVIEW.

Q32) WHAT ARE THE SUCCESS FACTORS FOR CONTINUOUS INTEGRATION?

EXAMPLES OF ANSWERS:

MAINTAIN A CODE REPOSITORY

AUTOMATE THE BUILD

MAKE THE BUILD SELF-TESTING

EVERYONE COMMITS TO THE BASELINE EVERY DAY

EVERY COMMIT (TO BASELINE) SHOULD BE BUILT

KEEP THE BUILD FAST

TEST IN A CLONE OF THE PRODUCTION ENVIRONMENT

MAKE IT EASY TO GET THE LATEST DELIVERABLES

EVERYONE CAN SEE THE RESULTS OF THE LATEST BUILD

AUTOMATE DEPLOYMENT

Q33) HOW WOULD YOU IMPLEMENT CI (CONTINUOUS DELIVERY) - END TO END, INCLUDING SOURCE CONTROL, BRANCHES, TOOLS, ETC. ?

Q34) WHAT IS CONTINUOUS DELIVERY? CONTINUOUS DEPLOYMENT?

Q35) WHAT IS THE DIFFERENCE BETWEEN CONTINUOUS INTEGRATION, CONTINUOUS DELIVERY AND CONTINUOUS DEPLOYMENT?

Q36) WHAT'S THE DIFFERENCE BETWEEN GIT AND GITHUB ? WHAT ABOUT GIT AND SVN ?

Q37) WHAT IS GIT REBASE?

Q38) IN GIT HOW DO YOU REVERT A COMMIT THAT HAS ALREADY BEEN PUSHED AND MADE PUBLIC?

Q39) WHAT IS PUPPET/CHEF/ANSIBLE USED FOR? WHAT ARE THE ADVANTAGES OVER SHELL SCRIPTS ?

Q40) WHAT DO YOU UNDERSTAND BY "INFRASTRUCTURE AS CODE"? HOW DOES IT FIT INTO THE DEVOPS METHODOLOGY? WHAT PURPOSE DOES IT ACHIEVE?



Q41) HOW DO YOU GIVE YOUR DEVELOPERS ACCESS TO THE PRODUCTION LOGS ?

Q42) TELL ME ABOUT THE WORST-RUN/BEST-RUN OUTAGE YOU'VE BEEN A PART OF. WHAT MADE IT BAD/WELL-RUN?

Q43) HOW DO YOU MONITOR YOUR APPLICATION ? HOW DO YOU MAKE SURE IT IS WORKING ? HOW DO YOU GET ALERTS WHEN IT STOPS WORKING ?

Q44) WHAT WOULD BE THE AVAILABILITY AND PERFORMANCE METRICS FOR A KEY VALUE STORE ? WHAT ABOUT FOR MYSQL REPLICATION ?

Q45) HOW WOULD YOU DEPLOY SOFTWARE TO 5000 SYSTEMS?

Q46) WHAT IS CACHING ? WHERE SHOULD A LARGE SCALE APPLICATION CACHE, AND WHAT DATA SHOULD BE CACHED ?