

Understanding Developer Tools

Questions	Notes
the bigger picture	<ul style="list-style-type: none">• Software developers use tools to accelerate the software development and release cycle
Cloud9	<ul style="list-style-type: none">• allows you to write code within an integrated development envireonment (IDE) from within web browser• integrated development environment• writre and debug code• supports popular programming languages• in the real world:<ul style="list-style-type: none">◦ build severless applications : Cloud9 preconfiguration the development with the needed SDKs and libraries . You can easily write the code for you lambda function directly in you web browser
CodeCommit	<ul style="list-style-type: none">• Is a source control system for private GIT repositories• Create repositories to store code• commit , brach and merge code• Collaborate with other software developers• In the real world:<ul style="list-style-type: none">◦ Manage versions source code file for your apps: can be used to manage source code and the different versions of application files.CodeCommit is similar to GitHub.
CodeBuild	<ul style="list-style-type: none">• CodeBuild allows you to build and test your application source code• Compiles source code and runs tests• Enables continuous integration and delivery• Produces and build artifacts ready to be deployed• In the real world:<ul style="list-style-type: none">◦ run tests before deploying a new version of an application to production◦ allows you to run as many parallel streams of tests as needed , allowing you to deploy your changes to production more quickly
Codedeploy	<ul style="list-style-type: none">• CodeDeploy manages the deployment of code to compute services in the cloud or on-premises• Deploys code eo EC2 , Fargate , Lambda , and On-premises• maintains application Uptime• in the real world:<ul style="list-style-type: none">◦ Maintain application Uptime when rolling out a new version◦ codeDeploy eliminates the donwtime of your application when deploying a new version due to its rolling deployments
codePipeline	<ul style="list-style-type: none">• Codepipeline automates the software release process• Quickly deliver new features and updates• Integrates with CodeBuild to run Builds and unit tests• Integrates with CodeCommit to retrieve source code• Integrates with CodeDeploy to deploy your changes• In the real world:<ul style="list-style-type: none">◦ add automation the building , testing , and deployment of your application◦ when cmbined with other developer tools, CodePipeline helps development teams implement Devops practices that automate testing an dthe movement of code to production
X-ray	<ul style="list-style-type: none">• X-ray helps you debug production applications• Analyze and debug production applications• Map applications compenents• view request end to end• in the real world:<ul style="list-style-type: none">◦ Trace calls to an RDS database can help you ma requests made to your RDS database from within your application.you can track information about the SQL queries generated and more.
CodeStar helps developers Collaboratively work on developement projects	<ul style="list-style-type: none">• Developers connect thier development environment• Integrates with CodeCommit, CodeBuild, and CodeDeploy• Contains issues tracking Dashboard• in the real world:<ul style="list-style-type: none">◦ CodeStar can manage the development pipline

Résumé

- **CodeCommit** Offers a service similar to GitHub that works with Git repositories
- **CodeDeploy:**Allows you to deploy an application to servers running on-premises and in the cloud
- **Cloud9:** offers an integrated development environment (IDE) that runs inside a web browser
- **CodePipeline :** Allows you to implement a CI/CD pipeline.