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Development Team Roles

Welcome to Development Team Roles.

What you will learn

At the core of the lesson

You will learn how to:
- Identify the different roles in a software development team
- Identify the responsibilities of the project manager
- Identify the responsibilities of the analyst
- Identify the responsibilities of the quality assurance role
- Identify the responsibilities of the software developer
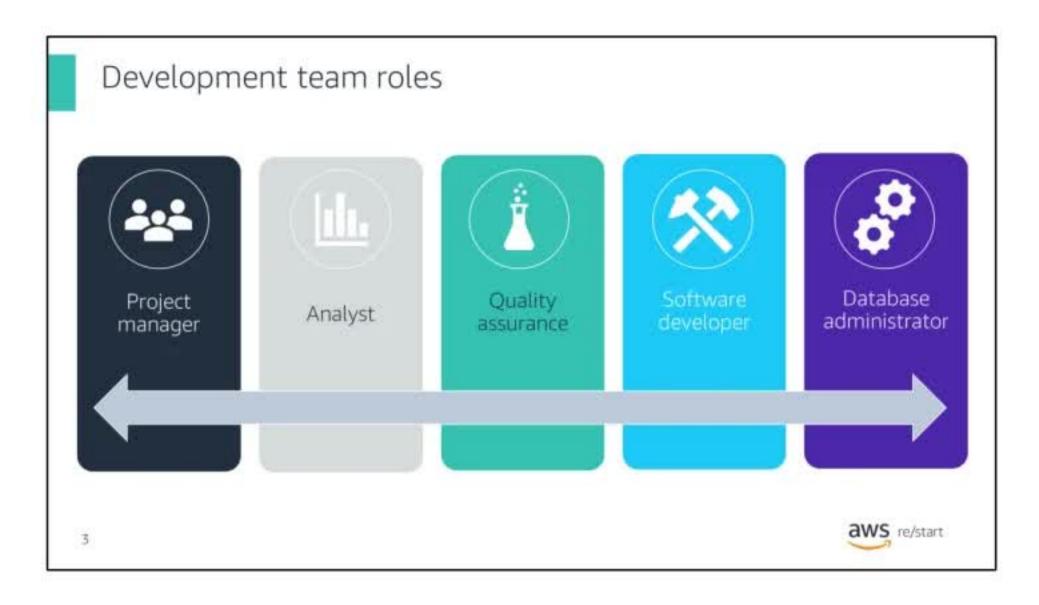- Identify the responsibilities of the database administrator

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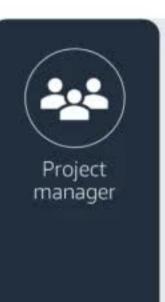

After completing this module, you should be able to:

- Identify the different roles in a software development team
- Describe general guidelines for effective development teams

Development team roles

Project manager	Analyst	Quality assurance	Software developer	Database administrator

To complete the Software Development Life Cycle (SDLC) in a successful and timely manner, development often takes place in teams. All team members have specialized roles that are designed to collaborate with each other.

Many teams are self-contained, where the team has enough technical expertise to accomplish the SDLC without relying on outside support.
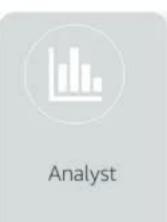
Project manager

Project manager	• Is responsible for developing a project plan • Recruits staff to fulfill other roles • Leads and manages the project team • Assigns tasks to different team members • Determines a timeline for the project • Provides updates to upper management

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Analyst

Analyst

- Is sometimes called the business analyst or requirements analyst
- Defines the purpose for each project
- Gathers requirements from leadership, clients, and users
- Organizes requirements into tasks for developers and quality assurance (QA) to use for implementation and testing

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Quality assurance

Quality assurance

Using requirements, a quality assurance team member:

- Creates a list of tests that verify function, usability, efficiency, maintainability, and portability for each new requirement
- Maintains the list of tests that are needed to verify the behavior for each previously released feature
- Runs all tests and investigates any failures
- Documents the steps to replicate bugs or issues in the application for the developer
- Assists in creating the acceptance criteria, which are the performance criteria that are used to measure successful completion of the application

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Software developer

Software developer

- Writes the code that makes up the application according to the specifications that the analyst provides
- Maintains previous versions of the application if they are still supported
- Runs initial test cases to ensure that the product works
- Writes code to fix and address bugs or other issues that are reported to them

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Database administrator

Database administrator

- Maintains the data that is needed in the application
- Is responsible for planning, maintaining, and configuring access to that data; and ensuring the availability of enough computing resources to make an application work correctly
- Secures the data in the database
- Backs up data (and restore data as needed)
- Is responsible for database performance and optimization

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Effective software teams

Because of the complexity of today's software applications, they are usually developed in teams. Effective collaboration can be the difference between a successful project and a project that fails.

Some general guidelines to follow include:
- Translating goals into a clear definition of work
- Prototyping and iterating over designs
- Using version control software to keep track of changes
- Documenting important decisions and any required project knowledge
- Encouraging two-way feedback
- Using time wisely

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Checkpoint questions

Which team member tests an application?

Which team member secures the data in the database?

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Key takeaways

Development team roles

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- The roles that are involved in the development of software include –
  - Project manager
  - Analyst
  - Quality assurance
  - Software developer
  - Database administrator

- Effective practices for developing software in a team include –
  - Clearly defining and communicating the requirements
  - Documenting the design
  - Using version control

Some key takeaways from this lesson are listed here.

- The roles involved in the development of software include –
  - Project manager
  - Analyst
  - Quality assurance
  - Software developer
  - Database administrator

- Effective practices for developing software in a team include – s
  - Clearly defining and communicating the requirements
  - Documenting the design
  - Using version control