



## Development Team Roles

Cloud Foundations

# What you will learn

## At the core of the lesson

You will learn how to do the following:

- 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.

## Job titles for development team roles



Project  
manager



Analyst



Quality  
assurance



Software  
developer



Database  
administrator

To complete the software development lifecycle (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

# 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

## Quality assurance



### Quality assurance

- 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

## 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

## 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 for ensuring the availability of enough computing resources to make an application work correctly
- Secures the data in the database
- Backs up data (and restores data as needed)
- Is responsible for database performance and optimization



# Effective software teams

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

The following are some general guidelines:

- Translate goals into a clear definition of work.
- Prototype and iterate over designs.
- Use version control software to keep track of changes.
- Document important decisions and any required project knowledge.
- Encourage two-way feedback.
- Use time wisely.

## Checkpoint questions



Which team member tests an application?



Which team member secures the data in the database?

1. Which team member tests an application?
  - Quality assurance team members run all tests and investigate any failures.
  - The Software developer runs all initial test cases to ensure that the product works.
2. Which team member secures the data in the database?
  - The database administrator ensures the security of the data in the database.

## Key takeaways



- The roles that are involved in the development of software include the following:
  - Project manager
  - Analyst
  - Quality assurance
  - Software developer
  - Database administrator
- Effective practices for developing software in a team include the following:
  - Clearly defining and communicating the requirements
  - Documenting the design
  - Using version control

The following are some key takeaways from this module.

- The roles involved in the development of software include the following:
  - Project manager
  - Analyst
  - Quality assurance
  - Software developer
  - Database administrator
- Effective practices for developing software in a team include the following:
  - Clearly defining and communicating the requirements
  - Documenting the design
  - Using version control



# Thank you



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Thank you for completing this module.