Full Stack
Studying full stack development can lead to a wide range of career opportunities in the tech industry. As a full stack developer, you will have the skills to work on both the front-end and back-end of web applications, allowing you to create complete solutions for businesses and organizations. You can work in a variety of roles, such as a software developer, web developer, full stack engineer, or even as a freelancer. Full stack development is in high demand, and salaries for full stack developers tend to be competitive. With the increasing importance of technology in all industries, there are ample opportunities for full stack developers to find work in diverse fields such as healthcare, finance, and education. Overall, studying full stack development can lead to a promising and rewarding career in the fast-growing tech industry.

FRONT-END DEVELOPMENT

HTML
        Introduction to HTML
        HTML tags and attributes
        Semantic HTML
        HTML forms
        Accessibility

CSS
        Introduction to CSS
        CSS selectors
        Box model
        Flexbox and Grid layout
        CSS animations and transitions

JavaScript
        Introduction to JavaScript
        Variables and data types
        Functions and scope
        Control flow and loops
        DOM manipulation
        Event handling
        ES6 features

Responsive Design
        Introduction to responsive design
        Media queries
        Flexible grid systems
        Responsive images
        Responsive typography

BACK-END DEVELOPMENT

Python Web Frameworks
    Introduction to web frameworks
    Django vs Flask
    Setting up a Django project
    Views, templates, and URLs in Django
    Flask routing and templates

Database Programming with Python
    Introduction to database programming
    Connecting to databases with Python
    Retrieving data with SQL
    Using Python to manipulate data
    Object Relational Mapping (ORM) with Django

Testing and Debugging in Python
    Writing tests in Python
    Using Python's built-in testing framework
    Debugging techniques in Python

Python APIs
    Working with APIs in Python
    Using Python to make HTTP requests
    Parsing JSON data in Python

DATABASE-

Introduction to MySQL
What is MySQL?
Comparison to other database management systems
Benefits of using MySQL in web development
MySQL data model and structure

Installing and Setting Up MySQL
Downloading and installing MySQL
Starting the MySQL server
MySQL command-line interface (CLI) commands
Connecting to MySQL from a web application

Data Modeling with MySQL
Data modeling basics

Designing tables and relationships in MySQL
Primary keys, foreign keys, and indexes
Normalization in MySQL

CRUD Operations with MySQL
Creating and inserting data
Reading data
Updating data
Deleting data
Querying and filtering data

MySQL Advanced Concepts
Transactions in MySQL
Stored procedures and functions
Triggers in MySQL
Views in MySQL
Full-text search in MySQL

Working with MySQL from a Web Application
Connecting to MySQL from a web application
CRUD operations with MySQL from a web application
Querying and filtering data from MySQL in a web application
Securing MySQL connections in a web application

Full Stack Application Development with MySQL
Integrating MySQL with a full stack web application
Designing the database schema for a web application
Handling user authentication and authorization with MySQL
Best practices for using MySQL in full stack web development