Some Important Question:

**What is python?**

* Python is an interpreted, object-oriented, high-level programming dynamic semantics.
* Python is a programming language that is widely used in web applications, software development, data science, and machine learning

**What is Django?**

* Django is a free, open-source Python framework for building websites and apps.
* It includes a set of classes, libraries, and modules to help developers create secure and maintainable web applications.

**What is Data science?**

Data science is the scientific study of data to gain knowledge and make predictions. It's a multidisciplinary field that combines computer science, mathematics, statistics, and artificial intelligence.

**For Example:** Business, Fraud detection,

**Types of Data Science:**

* **Machine learning:** A subset of data science that uses algorithms to teach machines to learn from data. Machine learning is used in many areas of data science, including cybersecurity and market analysis.

**For Example:** self-driving cars, recommendation systems, healthcare diagnostics

* **Data engineering:** Involves designing and implementing the infrastructure that data scientists use to process and store data.

**For example:** Tools like Hadoop, Spark, and SQL are used to create and maintain data pipelines and databases

* **Business intelligence:** Involves gathering and analyzing information to help business leaders make informed decisions
* **Data visualization:** Software that turns data sets into graphics to help data scientists identify patterns and inconsistencies. Data scientists can use these visualizations to share their findings.

**For Example:** Tableau and Power BI

* **Data analytics:** The process of gathering and analyzing data to identify patterns and trends. Data analysts use their findings to help businesses make decisions.

**For Example**: Inventory forecasting, Supply chain optimization, Product design, Contact tracing, Risk management, Weather prediction, Cloud computing

**Types of data analytics**

* **Descriptive analytics**: Analyzes data to understand what happened or is happening. It uses data visualization to condense large data sets into simple breakdowns.
* **Diagnostic analytics**: Explores the "why" by identifying anomalies in the data.
* **Predictive analytics**: Uses statistical models and machine learning algorithms to forecast future events or behaviors.
* **Prescriptive analytics**: Helps companies respond to the question of what they should do.

**What is Framework?**

A framework is a set of tools and conventions that help developers build software

**For Example:** Ruby on Rails, Django, Zend Framework, Express.js