

## Task - 4

### Data science life cycle role:

- 1) Defining the Problem: The first step is to define the business problem that needs to be addressed. For Zomato, a common problem could be improving food delivery efficiency and customer satisfaction. For instance, a restaurant like Anapurna might want to increase its customer service and ratings.
- 2) Data collection: Data is collected from various sources, including user orders, restaurant info, delivery partner data and customer reviews. Zomato collects this data through its platform and use it to make informed decision.
- 3) Data cleaning: The collected data needs to be cleaned to remove inconsistencies, missing values and error. This makes and ensures the data is reliable and accurate.
- 4) EDA (Exploratory Data analysis): It involves analyzing and visualizing the data to understand patterns, trends and relationship. For example, analyzing the impact we can use Jupyter or Tableau for this process.
- 5) Model Building: Models are built using ML techniques to solve specific problems. Zomato uses ML to predict food preparation time (FPT), allocate delivery partners, and to calculate predict estimate delivery time.

## 6) Deployment:

once the Models are built and validated, they are deployed into product.  
For instance, Zomato deploys models to predict FPR and optimize delivery routes, ensuring customers receive their food on-time and within expected range.