UNIT V PRESCRITIVE ANALYTICS

Prescriptive analytics:

Utilizing cutting-edge techniques and tools, prescriptive analytics analyzes data and content and suggests the best course of action or plan going forward. Simply put, it aims to provide a response to the query, "What should we do?"

The Operation of Prescriptive Analytics

The high-level prescriptive analytics workflow is comparable to the conventional machine learning workflow, with the exception that it results in suggested actions rather than predictive analytics and what-if scenarios. A high-level summary of the procedure is provided below to help business analyst get started. The specifics of the process will vary depending on your unique use case and type of data.

Process of Prescriptive analytics:

1**.Describe the query.**

The first step should be to clearly explain the issue one is trying to address or the question one wants to answer, just like with other data analytics or data science initiatives. This will help analyst to understand what data he need so that prescriptive model can produce results that he can actually use.

2. Combine the data. The next step is to compile the necessary data and set up dataset. Business analyst should include data that represents any factor business analyst can think of in his model to help it be as accurate as possible.

Business analyst must perform the following in order to prepare data for machine learning (ML) projects like this one:

• Check that your dataset is labeled and formatted correctly.

• Prevent data leakage and skew in training-serving.

• Correct any data that is incorrect, missing, or incomplete.

After importing, carefully check the dataset to ensure accuracy.

Business analyst will need to discover the appropriate tools because he may be working with massive data in real time. As it was already said, cloud data warehouses can now provide business analysts with the storage, power, and speed they require at a reasonable price.

3.Develop your model:

You are now prepared to construct, train, assess, and use your prescriptive model. Business analysts have two options: either they engage a data scientist to create the model from scratch using code, or they use an AutoML tool to create the model themselves as a citizen data scientist. In either case, a combination of structured data, unstructured data, and established business rules will need to be ingested by this algorithm-based model. Your model may employ analytical approaches like simulation, graph analysis,

4. Install your model.

Your prescriptive model can be made available for usage by business analysts if you're satisfied with its performance. This could be an ongoing production process or a one-time project. An asynchronous batch recommendation is usually best for a one-time project. A synchronous, real-time deployment is preferable if your model will be a key component of a bigger process in which other applications depend on quick predictions. As time goes on and more data is collected, your model should automatically update. The recommendations' accuracy will increase as a result.

5. Do something. The business analyst should now examine the suggestion, determine whether it makes sense, and then take the necessary activities. Prescriptive analytics should be seen as decision assistance rather than decision automation in instances when human intuition and judgment are necessary. On the other hand, the downstream actions might be carried out automatically if your prescriptive model is linked into a bigger process.