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Q. Write any 3-application of Data science and Explain in Detail.

Ans. 1) Fraud Detection and Risk Analysis :-
Banks and Financial institutions use data science to detect fraud, assess credit risk and optimise trading statgies. Data science models analyze large volumes of transactions in real-time Unusual patterns in transactions trigger fraud alerts. Credit risk models assess a borrower's financial history to determine loan approval chances. Paypal uses machine learning algorithms to detect fraudulent transactions, preventing Financial losses for customers.

2) E-Commerce - Recommendation Systems :-
Data science is used to create personalized shopping experiences by recommending products based on user behaviour. Algorithms analyze user activity, including past p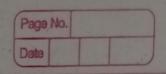urchases, browsing history and reviews. Machine learning models suggest products similar to what users have shown interest in.

3) Cybersecurity - Threat Detection and Prevention :-
Data science helps in cybersecurity by identifying and preventing cyber threats such as malware, phishing and hacking attempts. Machine learning models

analyze network activity to detect suspicious behaviour. AI - powered security systems identify unusual login attempts or unautho-rized access. Predictive analytics help organisations prevent future cyberattacks.

Q. Mention libraries of python For mathematic
operation, list, to draw the graph,
chart etc.

Ans ① Mathematical Operations :-
  • Numpy
  • Scipy
  • Sympy
  • math
  • statistics.

② Arrays and lists handeling
  • Numpy
  • pandas
  • array [Buit in module]

③ Graphs and charts (Data viselization)
  • Matplotlib
  • Sea born
  • Plotly
  •• Bokeh
  • ggplot (Plotnine).

Some extra liberay functions are :-
  • Scikit → learn For mL.
  • Tensorflow and pytorch → deep
          learning.
  • stats models → Statistical
          modelling,