Assignment

4. Take one domain and build business Understanding.

Business Understanding in E-commerce Retail

1. Problem Statement :

- Identify business problems or opportunities.
- Define the problem scope.
- Determine key stakeholders.
- Understand business goals.
- Analyze current processes.
- Identify pain points.
- Research industry trends.
- Assess competition.
- Define success metrics.
- Document the problem statement.

2. Business Objectives :

- Define specific goals.
- Make goals measurable.
- Align with business strategy.
- Identify target metrics.
- Set realistic timelines.
- Prioritize objectives.
- Ensure stakeholder buy-in.
- Define KPIs.
- Establish a budget.
- Document objectives.

3. Data Understanding :

- Identify data sources.
- Assess data quality.

- Collect relevant data.
- Explore data structure.
- Analyze data distributions.
- Identify data issues.
- Document data insights.
- Collaborate with data teams.
- Ensure data security.
- Prepare data summary.

4. Data Preparation :

- Clean the data.
- Handle missing values.
- Remove duplicates.
- Transform data formats.
- Normalize data.
- Split data for modeling.
- Document transformations.
- Validate data quality.
- Ensure data consistency.
- Prepare data for modeling.

5. Modeling :

- Select appropriate models.
- Train models.
- Tune hyperparameters.
- Evaluate model performance.
- Compare models.
- Select the best model.
- Validate assumptions.
- Address overfitting.
- Document model details.
- Prepare model deployment.

6. Evaluation

- Define evaluation metrics.
- Assess model performance.
- Compare to benchmarks.
- Evaluate business impact.
- Conduct sensitivity analysis.
- Identify risks.
- Document results.
- Prepare for deployment.
- Get stakeholder feedback.
- Refine the model.

7. Deployment :

- Plan deployment.
- Integrate with systems.
- Deploy the model.
- Monitor performance.
- Ensure scalability.
- Address issues.
- Document deployment.
- Train users.
- Communicate changes.
- Review deployment.

8. Maintenance :

- Monitor model performance.
- Collect new data.
- Retrain models.
- Update deployment.
- Address issues.

- Review business impact.
- Document changes.
- Communicate updates.
- Plan for future improvements.
- Ensure ongoing support.

9. Stakeholder Communication

- Identify stakeholders.
- Define communication plan
- Share insights.
- Report results.
- Get feedback.
- Address concerns.
- Collaborate on next steps.
- Document communication.
- Ensure transparency.
- Build stakeholder buy-in.

10. Review and Refine :

- Review project outcomes.
- Assess business impact.
- Identify successes.
- Identify areas for improvement.
- Refine processes.
- Document lessons learned.
- Share knowledge.
- Plan for future projects.
- Evaluate ROI.
- Continuously improve.