







Project Timeline & Task Table

Week	Phase	Tasks	Skills Required	Deliverables
1	 Project Setup & Planning	<ul style="list-style-type: none"> - Define problem and objectives - Create GitHub repo & project board - Team roles - Plan dataset needs & sources 	Project Management, GitHub, Planning	Project charter, GitHub structure
2	 Data Collection & Storage	<ul style="list-style-type: none"> - Gather real-world dataset(s) - Clean data (missing values, duplicates) - Design ER Diagram - Create Data Warehouse schema 	SQL, Data Modeling, ETL, Excel/Pandas	Clean dataset, ERD, Schema
3	 ETL & Preprocessing	<ul style="list-style-type: none"> - Implement ETL pipeline (Extract, Transform, Load) - Integrate into warehouse - Segment data (age, region, etc.) 	ETL tools, SQL, Python (pandas), DataOps	ETL scripts, loaded DW
4	 Data Mining & Intelligence	<ul style="list-style-type: none"> - Apply Association Rules (Apriori) - Perform Segmentation (Clustering) - Generate insights (KPIs) 	Apriori, Clustering (KMeans), sklearn, ML basics	Mined patterns, rules, KPIs
5	 BI Visualization (Tableau)	<ul style="list-style-type: none"> - Create dashboards in Tableau - Connect to Data Warehouse - Implement slicers/filters/segmentation - Add charts for trends, rules 	Tableau, BI Design, Storytelling	BI dashboards, Tableau project

6	 Reporting & Finalization	<ul style="list-style-type: none"> - Write README with all sections - Finalize documentation - Team presentation - Push everything to GitHub 	Documentation, Git, Presentation	Final Report, GitHub, Slide deck
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