

MODEL DEVELOPMENT PHASE TEMPLATE

Date	12 July 2024
Team ID	team-739690
Project Title	Medical Cost Prediction
Maximum Marks	5 Marks

Feature Selection Report Template

Feature selection in medical cost prediction identifies key attributes impacting healthcare expenses. Important features include demographic information , health metrics , socioeconomic factors, and historical data. Behavioral aspects and mental health status are also considered. These features enable accurate cost predictions and better healthcare planning.

Feature	Description	Selected(Yes/No)	Reasoning
Age	The age of individual.	Yes	Medical costs often vary significantly with age due to different health needs and risks.
Sex	Gender of the individual (e.g., male, female).	Yes	There may be gender-specific health issues and cost implications.
Body Mass Index(BMI)	A measure of body fat based on height and weight.	Yes	High or low BMI can be associated with various health risks affecting medical costs.
Smoker	Whether the individual is a smoker (yes/no).	Yes	Smoking is a major risk factor for many diseases, increasing medical expenses.
Chronic Conditions	Presence of chronic conditions(e.g-diabetes, hypertension).	No	All conditions maynot lead to consistent medical costs.
Region	Geographic location of the individual (e.g., northeast, southeast).	Yes	Healthcare costs can vary by region due to differences in cost of living, availability of

			services, and regional health policies.
Diet	Dietary habits of the individual.	No	Diet quality maynot be always accurate on medical costs.
Number of Children	Number of dependents covered by the individual's insurance plan.	Yes	More dependents can mean higher medical costs.
Charges/Expenses	Predicted Feature.	Yes	The value of total cost or expense should be calculated.