Model Development Phase Template

Date	7 July 2024
Team ID	739916
Project Title	Predicting the Compressive Strength of Concrete
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Cement (kg/m³)	Amount of cement in the mix	Yes	Major contributor to the compressive strength.
Water Content	Amount of water in the mix (kg/m^3)	Yes	Influences the hydration process and strength.
Coarse Aggregate	Amount of coarse aggregate (kg/m^3)	Yes	Provides bulk and affects the concrete's strength. Provides bulk and structural integrity to the mix
Age	Age of concrete in days	Yes	Compressive strength increases over time. Strength increases with age; typically measured at 7, 28, and 90

			days.
Fine Aggregate	Amount of fine aggregate (kg/m^3)	Yes	Affects the workability and strength of concrete. Impacts workability and the overall mix composition.
Superplasticizer	Amount of superplasticizer in the mix (kg/m^3)	Yes	Improves workability and can enhance strength.
Fly Ash	Amount of fly ash in the mix (kg/m^3)	Yes	Used as a supplementary cementitious material.
Blast Furnace Slag	Amount of blast furnace slag (kg/m^3)	Yes	Improves durability and strength
Water/Cement Ratio	Ratio of water to cement content	Yes	Crucial for determining workability and strength.
Temperature	Temperature during curing (°C)	Yes	Affects the rate of strength gain.
Mixing Time	Duration of mixing process (minutes)	Yes	Proper mixing ensures homogeneity.
Curing Method	Method used for curing (e.g., water curing)	Yes	Impacts the strength development.

Chemical Admixtures	Type and amount of chemical admixtures used	Yes	Can significantly alter the properties of concrete.