Model Development Phase Template

Date	15 March 2024
Team ID	SWTID1720113374
Project Title	Predicting Compressive Strength Of Concrete Using Machine Learning
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 in a m^3 mixture)	Amount of cement in the mix	Yes	Critical component that significantly influences the compressive strength of concrete.
Blast Furnace Slag (kg in a m^3 mixture)	Amount of blast furnace slag in the mix	Yes	Used as a partial replacement for cement, affecting strength and durability.
Fly Ash (kg in a m^3 mixture)	Amount of fly ash in the mix	Yes	Improves workability and contributes to strength over time.

Water (kg in a m^3 mixture)	Amount of water in the mix	Yes	Essential for hydration of cement, directly impacting strength.
Superplasticizer (kg in a m^3 mixture)	Amount of superplasticizer in the mix	Yes	Enhances workability without increasing water content, influencing strength.
Coarse Aggregate (kg in a m^3 mixture)	Amount of coarse aggregate in the mix	Yes	Provides compressive strength and bulk to the concrete mix.
Fine Aggregate (kg in a m^3 mixture)	Amount of fine aggregate in the mix	Yes	Affects the overall workability and strength of the concrete.
Age (days)	Age of the concrete sample	Yes	Strength of concrete increases with age, making this a critical factor.
Curing Conditions	Environmental conditions during curing	Yes	Curing affects the hydration process, impacting the final strength of concrete.

Mix Proportions	Ratios of the different components in the mix	Yes	Determines the balance between different materials, crucial for predicting strength.