**Model Development Phase Template**

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| Date | 15 March 2024 |
| Team ID | LTVIP2024TMID24776 |
| Project Title | Early Prediction Of Chronic Kidney Disease |
| 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.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Age | The age of the individual in years | Yes | Significant correlation with kidney health; older age is a known risk factor for CKD. |
| Blood Pressure | Systolic and diastolic blood pressure readings | Yes | High blood pressure is a critical indicator of kidney disease; essential for predictive modeling. |
| Blood Sugar Level | Fasting glucose level | Yes | Elevated blood sugar is a major risk factor for kidney disease; relevant for classification. |
| Smoking Status | Indicates whether individual smokes | Yes | Smoking is a known risk factor for kidney disease; important for lifestyle impact analysis. |
| Protein in Urine | Presence of protein in urine (yes/no) | Yes | Directly indicates kidney function; a key feature in CKD diagnosis. |
| Exercise Frequency | Frequency of exercise per week | No | While important for general health, it showed weak correlation with CKD in preliminary analysis. |
| Family History of CKD | Indicates if there is a family history of kidney disease | Yes | Family history is a strong predictor of CKD; relevant for assessing genetic predisposition. |
| Ethnicity | Ethnic background of the individual | Yes | Certain ethnicities are at higher risk for CKD; useful for demographic analysis. |