Model Development Phase Template

|  |  |
| --- | --- |
| Date | 08 August 2025 |
| Skill Wallet ID | **SWUID20250188325** |
| Project Title | Predictive Pulse: Harnessing Machine Learning for Blood Pressure Analysis |
| 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 |
| C (Gender) | Patient's gender (Male/Female) | Yes | Gender can influence hypertension risk due to hormonal and lifestyle factors. |
| Age | Age category of the patient | Yes | Age is a major risk factor for hypertension, with prevalence increasing over time. |
| History | History of hypertension (Yes/No) | Yes | Past medical history directly impacts current hypertension risk. |
| Patient | Whether the individual is a known patient (Yes/No) | Yes | Identifies returning patients whose prior health data may be relevant. |
| TakeMedication | Whether patient is currently on BP medication | Yes | Medication use influences current BP readings and stage classification. |
| Severity | Severity of symptoms (Mild/Moderate/Severe) | Yes | Symptom severity can indicate the urgency and stage of hypertension. |
| BreathShortness | Presence of shortness of breath (Yes/No) | Yes | Symptom often associated with severe hypertension or related complications. |
| VisualChanges | Visual disturbances (Yes/No) | Yes | Vision issues can be a symptom of advanced hypertension or related damage. |
| NoseBleeding | Incidence of nosebleeds (Yes/No) | Yes | Nosebleeds may indicate elevated blood pressure levels. |
| Whendiagnoused | When the patient was diagnosed (Recently/Long ago) | Yes | Time since diagnosis helps assess disease progression. |
| Systolic | Systolic blood pressure reading | Yes | Primary input for determining BP stage. |
| Diastolic | Diastolic blood pressure reading | Yes | Primary input for determining BP stage. |
| ControlledDiet | Whether patient follows a controlled diet | Yes | Dietary habits significantly affect BP control and management. |