|  |  |  |
| --- | --- | --- |
|  | **Model Development Phase** | |
| Date |  | 17 July 2024 |
| Team ID |  | Team-739867 |
| Project Title |  | SmartLender – Envisioning Success:  Predicting University Scores With 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 |
| world\_rank | It represents the global ranking of a university according to various university ranking systems. | No | Data leakage,Inflated  performance,Limited generalisation |
| institution | It's a  category corresponds to a unique institution. | Yes | Capturing brand value,Proxy for Unmeasured factors,Potential performance gains. |

|  |  |  |  |
| --- | --- | --- | --- |
| country | It's  represents the country where a university or institution is located. | Yes | Regional difference,Resource  Availability,Global reputation.Regional analysis |
| national\_rank | It's  represents the ranking of a university within its own country. | Yes | Relative performance,Contextualization,Identifyin g National Champions,National level analysis. |
| quality\_of\_educatio  n | It's  represents the overall quality of education provided by a university. | Yes | Core Education Mission,Student  Experience,Future success  Indicator,Multifaceted Concept. |
| alumni\_employment | the  employment outcomes of a university's alumni. | Yes | Measures of Graduate  success,Attractiveness to prospective students,Industry connections and  Reputation,outcome-oriented rankings. |
| quality\_of\_faculty | the expertise, experience, and qualification | Yes | Driving force of research and education,Attracting top students,Knowledge creation and Dissemination. |

|  |  |  |  |
| --- | --- | --- | --- |
|  | s of a university's faculty members. |  |  |
| publications | It is  represents the research output and academic productivity of a university's faculty and researchers. | Yes | Measure of Research  Productivity,Attracting Research funding and talent,Dissemination of Knowledge. |
| influence | the impact and reputation of a university on a global scale. | Yes | Thought Leadership and Reputation,Attracting Diverse  Stakeholders,Holistic Rankings. |
| citations | the impact and influence of a university's research output, measured by the number of times its publications are cited by | Yes | Indicator of Research Quality,Measuring research impact,Assessing research quality,Research-Intensive Rankings. |

|  |  |  |  |
| --- | --- | --- | --- |
|  | other researchers. |  |  |
| broad\_impact | Represents the extent to which a university's research and activities have a broad, far-reaching impact on society, economy, and environment. | Yes | Holistic Assessment,Attracting Diverse  Stakeholders,Reflecting Societal  Relevance,Identifying socially engaged universities. |
| patents | which can be an indicator of the university's innovation and research output. | Yes | Innovation and  Commercialization,Industry  Collaboration and impact,Attracting Entrepreneurial Talent. |
| score | It's  represents the overall performance or ranking of a university | No | It is target variable not a feature,Defeats the purpose,Data leakage and Circularity. |
| year | the specific year or time | Yes | Capturing trends and changes,Adjusting for time-specific factors,Longitudinal |
|  | period associated with the university data. |  | analysis. |