

Model Development Phase Template

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| Date | 15 July 2024 |
| Team ID | 740044 |
| Project Title | One year life expectancy post on Thoracic Surgery 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 |
|---------|-------------|-------------------|-----------|
|---------|-------------|-------------------|-----------|

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|-----------|-------------------|-----|---|
| Diagnosis | Type of diagnosis | Yes | For predicting the life expectancy diagnosis is not required. |
|-----------|-------------------|-----|---|

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|-----|-------------------|-----|---|
| FVC | | Yes | Relevant for lung function test |
| | Patient lung test | | potential bias in patient life expectancy |

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|----------------------------|--------|--|---------------------------------------|
| | Status | | |
| Performance of the Patient | Yes | | status can impact on life expectancy. |

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|------|-----------------------------|--|---|
| Pain | Yes | | Indicates patients respiratory and Lung capacity. |
| | presence or absence of pain | | |

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|-------------|-------------------------|-----|---|
| Haemoptysis | Coughing up blood | Yes | The presence or absence of coughing up blood. |
| Dyspnea | Difficulty in breathing | Yes | The presence or absence of difficulty in breathing. |

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|----------|------------------|-----|--------------------------------------|
| Cough | Coughing | Yes | The presence or absence of coughing. |
| Weakness | Patient weakness | Yes | The presence or absence of weakness. |

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|------------|---------------|-----|---|
| Tumor Size | Size of tumor | Yes | Different patients individuals may have different sizes of tumor. |
|------------|---------------|-----|---|

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|-------------------|-------------------|-----|---|
| Diabetes Mellitus | Diabetes Mellitus | Yes | The presence or absence of diabetes mellitus. |
|-------------------|-------------------|-----|---|

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|--------|-----------------------|-----|---|
| MI_6mo | Myocardial Infarction | Yes | within the past 6 months presence or absence of a myocardial infarction |
|--------|-----------------------|-----|---|

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|-----|-----------------------------|-----|---|
| PAD | Peripheral Arterial disease | Yes | Peripheral arterial disease presence or absence |
|-----|-----------------------------|-----|---|

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|---------|-----------------|-----|------------------------------|
| Smoking | Smoking history | Yes | Smoking history of a patient |
|---------|-----------------|-----|------------------------------|

Asthma

Yes

If there is asthma disease in medical history.

Asthma history

Age of the
patient

Age Yes

Different patients have different ages