

Model Development Phase Template

Date	22 June 2024
Team ID	740770
Project Title	Disease Prediction 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
itching	Sensation on the skin that prompts scratching, it can be caused by allergic reactions	Yes	Common symptom indicating various skin conditions or allergies.

Muscle pain	Pain or discomfort in the muscles, often due to overexertion, injury, or infections like influenza.	Yes	Can indicate viral infections, muscle strains, or systemic illnesses.
Shivering	Involuntary shaking or trembling, typically as a response to feeling cold or having a fever.	Yes	Often a sign of infection or fever.
Joint pain	Pain or discomfort in the joints, which can be due to arthritis, injury, or infections like viral or bacterial arthritis.	Yes	Important for diagnosing arthritis, viral infections, or autoimmune diseases.

Stomach pain	Pain or discomfort in the abdomen, which can be caused by a wide range of conditions including indigestion, infections, or inflammation.	Yes	Essential for diagnosing gastrointestinal disorders or infections.
Vomiting	The forceful expulsion of stomach contents through the mouth, often due to infections, food poisoning.	Yes	Indicates gastrointestinal issues, infections, or food poisoning

Fatigue	Persistent feeling of tiredness or weakness, often due to lack of sleep	Yes	Common in many illnesses and can indicate chronic conditions
Weight loss	Unexplained reduction in body weight, which can be due to various reasons including malnutrition, infection	Yes	Significant for diagnosing systemic illnesses, cancer, or metabolic disorders.

Restlessness	Inability to stay due to anxiety, fever, or discomfort from physical symptoms.	Yes	Indicates discomfort, fever, or psychological distress.
Lethargy	A state of tiredness or lack of energy	Yes	Signifies serious illnesses, infections, or chronic conditions.
High fever	Elevated body temperature typically above 38°C often a sign of infections.	Yes	Important for indicating severe infections or inflammatory conditions.
Headache	Pain in the head or upper neck region, which can be due to tension, migraines	Yes	Common symptom indicating various illnesses or conditions. .
Dark urine	Urine that appears darker than usual, which can indicate dehydration	Yes	Indicates liver or kidney issues, dehydration, or certain medications.

Nausea	Feeling of discomfort in the stomach with an urge to vomit, often due to infections, motion sickness.	Yes	Common symptom in gastrointestinal infections, pregnancy, or other conditions
Coma	State of prolonged unconsciousness where a person cannot be awakened, often due to severe head injury.	Yes	Indicates severe neurological or metabolic emergencies.
Constipation	Difficulty in passing stools or infrequent bowel movements, often due to dehydration.	Yes	Common symptom indicating digestive issues or systemic disorders.
Abdominal	Pain or discomfort felt in the abdominal region, which can be due to digestive issues.	Yes	Essential for diagnosing gastrointestinal, reproductive, or systemic issues.

Diarrhoea	Frequent passage of loose, watery stools, typically caused by infections.	Yes	Indicates gastrointestinal infections, inflammatory bowel disease, or food intolerances.
Mild fever	Slight elevation in body temperature, often seen in the early stages of infections.	No	Less specific compared to high fever in indicating serious infections.
Malaise	General feeling of discomfort, illness, or uneasiness, which can accompany infections, chronic diseases, or fatigue.	Yes	Indicates general feeling of illness or discomfort.
Phlegm	Thick mucus secreted by the respiratory system, often seen during respiratory infections or allergies.	Yes	Indicates respiratory infections, allergies, or chronic conditions.

Congestion	Blockage or inflammation of nasal passages or airways, causing	Yes	Common in respiratory infections or allergies.
	difficulty in breathing.		
Chest pain	Pain or discomfort felt in the chest area, which can be caused by heart conditions	Yes	Can indicate serious cardiac issues, respiratory problems, or musculoskeletal disorders.
Fast heart rate	Elevated heart rate , often due to stress, fever, dehydration, or cardiovascular conditions.	Yes	Important for diagnosing cardiac issues, infections, or metabolic disorders.
Neck pain	Pain or discomfort in the neck region, often due to muscle strain, injury, or infections like meningitis.	Yes	Can indicate musculoskeletal issues, infections, or neurological problems.

Dizziness	Feeling lightheaded, unsteady, or faint, which can be due to various causes including inner ear problems	Yes	Common symptom indicating various conditions including inner ear disorders, dehydration, or neurological issues.
-----------	--	-----	--

Belly pain	Pain or discomfort in the abdominal area, similar to abdominal pain	No	Vague term compared to abdominal pain, which is more specific.
Knee pain	Pain or discomfort in the knee joint, which can be caused by injury, arthritis, or overuse.	Yes	Important for diagnosing arthritis, injuries, or infections.
Muscle weakness	Reduced strength in muscles, which can be due to various reasons including lack of exercise.	Yes	Indicates neuromuscular disorders, metabolic issues, or systemic illnesses.

Passage of gases	Excessive production or expulsion of gas from the digestive system, commonly associated with bloating or flatulence.	No	Often a normal bodily function unless associated with other symptoms.
Irritability	Feeling easily annoyed or agitated, which can be due to stress, hormonal changes	Yes	Indicates psychological distress, infections, or hormonal imbalances.

Continuous sneezing	Repeated and frequent sneezing episodes, often due to allergies, colds	No	Often due to allergies or irritants, not typically a primary indicator of serious illness.
Puffy face and eyes	Swelling or puffiness around the face and eyes, which can be due to allergies	Yes	Indicates allergies, infections, or autoimmune disorders.
Abnormal menstruation	Irregularities in menstrual cycles such as heavy bleeding, missed periods	Yes	Important for diagnosing hormonal imbalances, pregnancy, or gynecological issues.

Increased appetite	Noticeable increase in hunger or desire for food, which can be due to hormonal changes	No	Can be a normal variation or due to nonmedical factors.
Lack of concentration	Difficulty focusing or paying attention, which can be due to stress, fatigue	Yes	Indicates cognitive issues, stress, or neurological conditions.
Visual disturbances	Changes or disruptions in vision.	Yes	Indicates eye problems or neurological issues.

Receiving blood transfusion	Process of receiving donated blood, typically done to replenish blood loss from surgery, injury.	No	Procedure rather than a symptom; not relevant to clinical symptomatology.
Pain behind the eyes	Aching or discomfort felt behind one or both eyes, often associated with sinusitis, eye strain.	Yes	Can indicate eye strain, sinusitis, or neurological issues.

History of alcohol consumption	Past record of consuming alcoholic beverages, relevant for assessing potential liver disease, addiction, or overall health risks.	Yes	Not a symptom but relevant in certain medical contexts.
Blood in sputum	Presence of blood in mucus coughed up from the respiratory tract, which can indicate infections, lung conditions, or trauma.	Yes	Indicates serious respiratory infections, lung diseases, or trauma.
Yellowing of eyes	Jaundice, a condition where the eyes and skin turn yellow due to elevated bilirubin levels	Yes	Indicates liver dysfunction or jaundice.
Palpitations	Sensation of rapid, fluttering, or pounding heartbeats, often due to stress, caffeine intake, or heart conditions.	Yes	Indicates cardiac arrhythmias, stress, or hormonal imbalances.

Inflammatory nails	Changes in nails such as redness, swelling, or pain, which can indicate infections, autoimmune disorders, or trauma.	Yes	Indicates infections, autoimmune disorders, or systemic illnesses.
Yellow crust ooze	Discharge from wounds or skin lesions that is yellow in color, which can indicate infection or inflammatory skin conditions.	Yes	Indicates skin infections or inflammatory skin conditions.