Rules in Knowledge Base

Rule 1: Both fever and headache are present => asserts a new fact "fever-headache" as yes-yes.
Explanation: The above fact can then be used to decide between the illnesses/diseases that have symptoms of both fever and headache such as meningitis, mono, hepatitis, flu, malaria, ebola and hypotension.

Rule 2: Fever is absent and headache is present => asserts a new fact "fever-headache" as no-yes.
Explanation: The above fact can then be used to decide between the illnesses/diseases that do not have fever and have headache as their symptoms such as cold and hypertension.

Rule 3: Fever is present and headache is absent => asserts a new fact "fever-headache" as yes-no.
Explanation: The above fact might imply that the illness/disease is tuberculosis (has fever as its symptom but not headache).

Rule 4: Both fever and headache are absent => asserts a new fact "fever-headache" as no-no.
Explanation: The above fact might imply that the illness/disease is diabetes (has fever and headache as its symptoms).

Rule 5: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of yellowing of skin and eyes, muscle and joint pains are present => fact "diagnosis" is asserted as jaundice, an advanced stage of hepatitis.

Rule 6: The fact "fever-headache" is yes-no **(**Rule 3) AND the symptoms of blood tinged cough, night sweats or chills are present => the fact "diagnosis" is asserted as tuberculosis.

Rule 7: The fact "fever-headache" is no-no **(**Rule 4) AND the symptoms of blurry vision, increased thirst and hunger are present => the fact "diagnosis" is asserted as diabetes.

Rule 8: The fact "fever-headache" is no-yes **(**Rule 2) AND the symptoms of stuffy nose and watery eyes are present => the fact "diagnosis" is asserted as cold.

Rule 9: The fact "fever-headache" is no-yes **(**Rule 2) AND the symptoms of lightheadedness, vertigo, high blood pressure and fast heart rate are present => the diagnosis is hypertension.

Rule 10: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of low blood pressure and irregular heartbeat are present => the diagnosis is hypotension.

Rule 11: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of intolerance to bright light, stiff neck and loss of appetite are present => the fact "diagnosis" is asserted as meningitis.

Rule 12: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of swollen lymph nodes and tonsils are present => the fact "diagnosis" is asserted as mono.

Rule 13: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of sore throat, fatigue, vomiting, diarrhea, abdominal or chest pain are present => the fact "diagnosis" is asserted as ebola and the fact "ebola-is" is asserted as yes.

Rule 14: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of convulsions, chills, muscle and joint pains are present => the fact "diagnosis" is asserted as malaria.

Rule 15: The fact "fever-headache" is yes-yes **(**Rule 1) AND the symptoms of sore throat and fatigue are present AND the diagnosis is not ebola => the fact "diagnosis" is asserted as flu. Explanation: All symptoms of flu are also seen in ebola. Hence a check is performed to see if the diagnosis is ebola. If the fact "ebola-is" from Rule 13 is not asserted as yes, then the diagnosis is flu.

Rule 16: The fact "fever-headache" is no-no **(**Rule 4) AND the symptoms of blurry vision, increased thirst and hunger are not present => the facts are inconsistent or not enough to propose a diagnosis.

Rule 17: The fact "fever-headache" is yes-no **(**Rule 3) AND the symptoms of cough with blood tinge, night sweats and chills are not present => the facts are inconsistent or not enough to propose a diagnosis.

Rule 18: The fact "diagnosis" is mono (Rule 12) => the diagnosis is displayed.

Rule 19: The fact "diagnosis" is meningitis (Rule 11) => the diagnosis is displayed.

Rule 20: The fact "diagnosis" is jaundice (Rule 5) => the diagnosis is displayed.

Rule 21: The fact "diagnosis" is cold (Rule 8) => the diagnosis is displayed.

Rule 22: The fact "diagnosis" is flu (Rule 15) => the diagnosis is displayed.

Rule 23: The fact "diagnosis" is malaria (Rule 14) => the diagnosis is displayed.

Rule 24: The fact "diagnosis" is diabetes (Rule 7) => the diagnosis is displayed.

Rule 25: The fact "diagnosis" is tuberculosis (Rule 6) => the diagnosis is displayed.

Rule 26: The fact "diagnosis" is ebola (Rule 13) => the diagnosis is displayed.