**Functional and Non-functional Requirements**

**Covid Expert System**

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| **Functional (what)** | **Non-functional (how)** |
| 1. A health worker Add knowledge to database to use in diagnosis 2. Diagnosis identify Regular Covid 3. Diagnosis identify Delta Variant 4. Diagnosis identify Omicron Variant 5. System records underlying conditions that can impact the severity of symptoms experienced with Omicron Variant 6. System Display underlying conditions recorded 7. Make Query providing details of possible pending problems 8. Display Percentage of people (based on total persons diagnosed) who are at risk of having covid 9. Display Percentage of people (based on total persons diagnosed) who have covid 10. Display the Percentage of people with Mild Symptom 11. Display the Percentage of people with Severe Symptom 12. Display the Percentage of people with Delta Variant 13. Display the Percentage of people with Omicron Variant 14. Display the Percentage of people with Omicron Variant that Have Underlying Conditions 15. Accept details of various Contributory Factors 16. Use the contributory factors along with the knowledge base to Make Predictions 17. Contributory factors should include Patient's Temperature in Degrees Celsius 18. Degrees Celsius should be Converted to Degrees Fahrenheit 19. System should Find Out if the patient has experienced Dizziness 20. System should Find Out if the patient has experienced Fainting 21. System should Find Out if the patient has experienced Blurred Vision 22. System should Capture Systolic Values for patient 23. System should Capture Diastolic values for patient 24. Systolic values should tell if a patient have Low Blood Pressure (reading lower then 90mm Hg) 25. Diastolic values should tell if a patient have Low Blood Pressure (reading lower then 60mm Hg) 26. Allow the option to Add Additional Symptoms that require Blood Pressure Check 27. System should be able to determine if a person is at risk of having Covid using details provided by the user ->Conclusion 28. System should be able to determine if a person have Covid using details provided by the user -> Conclusion 29. System display actions that are required in short term based on the Severity of Symptoms/Variation of Covid detected 30. System Display Actions that are Required in Long Term based on the Severity of Symptoms/Variation of Covid detected 31. Provide advice regarding the possible actions required 32. Alert the authorities of any Spike in reports of Persons Prone to Having Covid 33. Alert the authorities of any Spike in reports of Persons who Have Covid 34. Alert the authorities of any Unusual Increase in reports of Persons Who Have Covid 35. Alert the authorities of any Unusual Increase in reports of Persons who are Prone to Having Covid 36. Able to retain all data entered by the user for scalability | 1. Security 2. should be user friendly 3. should have responsive user interface 4. Simplicity 5. Speed 6. Reusability 7. Battery preservation 8. Intuitive UX and clear privacy options 9. Search options 10. Multifactor authentication 11. Scalable text 12. Data collection opt-out 13. Bright and bold color schemes |