**Magic Mirror Requirements Traceability Matrix**

|  |  |  |
| --- | --- | --- |
| Entry # | Paragraph # | Requirements Traceability Matrix (RTM) |
| 1. | 1.1 | The Magic Mirror shall run behind a 2-way mirror to create the feel of a Smart Mirror. |
| 2. | 1.2 | It shall run on a Raspberry Pi. |
| 3. | 1.4 | The Magic Mirror shall also use a gesture sensor to make it more user friendly. |
| 4. | 1.5 | The gesture sensor shall recognize many gestures performed by a user in order to allow the user to customize appearance, change screens, and control other aspects of the display. |
| 5. | 1.7 | It shall have a motion sensor that will detect motion in the room and display the screen when the person is in range. |
| 6. | 2.1 | The mirror shall display many features including a clock, up to date weather, news, stocks, and many others. |
| 7. | 2.2 | The data shall come from various online API’s. |
| 8. | 2.3 | The clock feature shall display either standard or military time and analog or digital based on the user’s preference. |
| 9. | 2.6 | The program shall automatically locate the location of the mirror when the program runs based on IP address obtained from the network, allowing the clock to display the correct time based on the time zone. |
| 10. | 2.7 | The weather display shall display the current temperature, forecasted temperature, sunrise and sunset times. |
| 11. | 2.8 | It shall also automatically display the weather based on current location, which is determined by the program at runtime. |
| 12. | 2.10 | The weather data shall be updated every 5 minutes automatically. |
| 13. | 2.11 | The mirror shall display suggested outfits based on the weather by displaying images of clothing items to wear that day. |
| 14. | 2.12 | The news feature shall display hot headlines from various news sources. |
| 15. | 2.15 | The user shall have the ability to change between different sources by using gestures. |
| 16. | 2.16 | The stocks page shall display various stock info like top daily and weekly stocks. |
| 17. | 2.17 | The calendar page shall display a Google calendar and allow the user to link their personal calendar and get info about the events stored in their calendar. |
| 18. | 2.19 | Each main display (news, weather, stocks, and calendar) shall be changed using gestures. |
| 19. | 2.20 | The user shall swipe left or right in front of the sensor in order to switch between these different displays. |
| 20. | 2.21 | This software shall provide easy accessibility to all the apps such as weather, clock, calendar, news, and stocks that you have on your phone into one product, all without having to even unlock your phone. |