1. Project Scope:

   The VirusTotal application / API will allow the user to use a command line interface to scan files by uploading the files and scanning the file to check for viruses or typing / copying and pasting a URL into the command line and checking if the website has any websites

2. Functional Objectives:

   a. High Priority
      - Provides a command line where you can type a URL for it to check if it has a virus
      - Returns if the website has any viruses or not
      - Lets the user upload any files
      - Checks if the file has any virus and returns anything it finds.

   b. Medium Priority
      - Provides the file(s) that has the virus
      - Returns if the website is safe or not / has a virus or not

   c. Low Priority

3. Use Case Descriptions

Use Case Name :	Requesting API to check Link or Files for Virus
Summary :	The user will be able to choose either file or URL / Link for the API to check if that file or URL has a virus then returns if it has a virus or not
Basic Flow	1. Application prompts user to either type the URL or upload file 2. The user selects file 3. Application prompts user to upload file 4. The user selects URL 5. Application prompts user to type the URL 6. The application performs if file or URL is valid 7. Application retrieves the data from API VirusTotal if URL or file has virus or not and returns that data to user
Alt Flow	Step 3 : If the file type that was submitted by the user was invalid. An error message is displayed to the user and application starts at step Step 2. Step 7 : If no response from the API. An error message will pop up and take the user back to step 1
Preconditions	Application is running
Postconditions	Application returns to Step 1 or ends
Business Rule	URL is valid if it has a domain at the end or the URL. File size max is 32MB

```
                              ┌─────────┐
                              │  Start  │
                              └────┬────┘
                                   │
                   ┌───────────────┴────────────┐
                   │  Display option            │◄──────────────────┐
                   │  1) Type Link              │                   │
                   │  2) Upload File            │                   │
                   │  Q) Quit                   │                   │
                   └───────────────┬────────────┘          ┌────────┴────────┐
                                   │                        │ Takes them back │
                   ┌───────────────┴────────────┐           │  to main menu   │
                   │       User Select          │           └────────▲────────┘
                   └───────────────┬────────────┘                    │
                                   │                                 No
                                   │                                  │
              ┌──────┐   No   ┌──────┐      ┌──────┐   Yes   ┌───────────┐
              │ User ├───────►│ User ├─────►│ User ├────────►│    End    │
              │ent.1?│        │Ent.2?│      │Ent.Q?│         └───────────┘
              └───┬──┘        └───┬──┘      └──────┘
                 Yes            Yes
                  │              │
        ┌─────────┴────┐  ┌──────┴───────┐
        │Prompt user to│  │Prompt user to│
        │ enter URL    │  │ enter File   │◄────┐
        └─────┬────────┘  └──────┬───────┘     │
              │                  │             │
        ┌─────┴────────┐  ┌──────┴───────┐     │
        │User enters   │  │User enters   │     │
        │    URL       │  │    File      │     │
        └─────┬────────┘  └──────┬───────┘     │
              │                  │             │
        ┌─────┴────────┐  ┌──────┴───────┐     │
        │ Validate URL │  │ Validate File│     │
        └─────┬────────┘  └──────┬───────┘     │
              │                  │             │
   ┌────────┐ │ No     ┌─────┐   │ No   ┌────────────┐
   │Display │◄┤        │User │   │      │Display     │
   │invalid │ │        │ent. │   │      │invalid File│
   │URL Err │ │        │valid│   │      │   Error    │
   └────────┘ └────────│URL? │   └──────│User ent.   │
                       └──┬──┘          │valid File? │
                         Yes           └──────┬──────┘
                          │             Yes   │
                          └────┐  ┌──────────┘
                               │  │
                          ┌────┴──┴────┐
                          │  Request   │
                          │ VirusTotal │
                          └─────┬──────┘
                                │
                          ┌─────┴──────┐
   ┌──────────────┐  Yes  │ Valid API  │   No   ┌──────────────┐
   │Displays if   │◄──────┤ Response?  ├───────►│Display API   │
   │the file/URL  │       └────────────┘        │unreachable   │
   │is safe from  │                             │   error      │
   │viruses       │                             └──────┬───────┘
   └──────────────┘                                    │
                                                       ▼
                                                    (End)
```