1. System Requirements Engineering
   1. Enumerated Frontend Functional Requirements

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| Identifier | Requirement | PW |
| REQ1 | The system shall allow user to search challenges using keywords | 1 |
| REQ2 | The system shall allow user to filter the searched result | 3 |
| REQ3 | The system shall allow user to mark challenges as complete | 5 |
| REQ4 | The system shall allow user to register | 4 |
| REQ5 | The system shall allow user to login and manage profile | 4 |
| REQ6 | The system shall allow user to save challenges into user profile | 5 |
| REQ7 | The system shall allow user to view challenges | 2 |

The key objective for this system is to allow users to search the challenges from the consolidated database. So, REQ1 has the highest priority, because emphasis is that users shall be able to search with no string attached.

Going with the natural flow of user expectations, users shall be able to view challenge/s that makes it a Second priority (REQ7) requirement.

User interaction can be made impactful if advanced search and filter capability is provided to user, that brings us to define the REQ2 and third highest priority requirement.

Generally, users use the challenge websites and resources at events where they need to appear for an interview or brush-up the skillset, with that in mind users don’t really want to create username and password if they had to use resources for limited period of time.

It’s an optional requirement for a user to register as a new user, login with registered user and manage profile to view history on search results, change password, change avatar etc., REQ4-5 will serve the purpose.

REQ3 & REQ6 are the lower priority requirements, serves as next step in using the resources from such a site

* 1. Enumerated backend functional Requirements.

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| Identifier | Requirement |
| REQ1 | The system shall run periodical web-scrapping queries from all listed website. |
| REQ2 | The system shall record result of web-scrapping queries in local database |
| REQ3 | The system shall allow administrator to initiate web-scrapping queries |
| REQ4 | The system shall allow administrator to add or remove challenges. |

The basic idea of this system is to gather various challenges from several websites and provide a one-stop tool to users. The primary requirement REQ1 is to allow the system to run automated web-scrapping queries periodically.

System will have local database to store all challenges, so that system doesn’t have to rely on external storage which can induces network related issues for the users, It is covered in REQ2.

The system will also allow administrator/s to run ad-hoc queries as needed.

System will also provide administrative capability to add or remove challenges on need basis.