**Reading .JSON files**

|  |  |  |
| --- | --- | --- |
| **Sr No** | **Section** | **Description** |
|  |  |  |
| 1 | Introduction | A command line application to search .json files on different fields/properties and return the results in a human readable format |
| 2 | Requirements | * Any programming language * Command line application * Reading tickets.json, users.json, organization.json * Option of allowing user to select the desired file to be read * Search selected .json files based on fields/ properties * Display properties/ fields of selected .json * Option of providing values of field/ properties * Display records from selected .json which match the user criteria   **(Initially, the user was able to search on any field for full value matching, implemented changes where-in search can also be done for partial values)** |
| 3 | Solution Specification: | * Used Visual Studio 2017 * The coding is done in C# * Created a console application * Installed **Package Newtonsoft.Json:**   Visual Studio 🡪 Tools menu 🡪 Manage Nuget Package Manger Solution 🡪 type “**JSON.NET**” 🡪click search it online 🡪 install   * Use <http://www.jsonutils.com/>   For generating the classes parameters based  on .json format (object – value) pair |
| 4 | Files created | * Program.cs (main function and search implementation) * User.cs (for users.json) * Ticket.cs (for tickets.json) * Organization.cs (for organizations.json) * JsonHelper.cs ( for serializing & deserializing the .json) |
| 5 | Coding Details | * Classes created for respective .json and properties of .json are mapped to the class attributes (User, Ticket, Organization) * JsonHelper class created for deserializing the .json file and creating class objects * Reading the .json files, parsing and searching based on property and its value is handled in Program.cs (search function) |
| 6 | Test | Prepared test scenarios and test cases. Developed test data and expected result. Recorded the entered data and test results. Following documents were used for testing:  - Testing document (**revised – added negative test cases**)&  - Test data |
| **7** | **~~Not Covered~~** | **~~Searching the .json for fields with multiple values – eg: ‘tags’ in users.json~~**  [Now Implemented the following: Properties/ ‘search field’ with multiple values (list) can be searched with any one of the value]  E.g.: "tags": ["Jordan", "Roy", "Mckinney"]  User can enter ‘Jordan’ or ‘Roy’ or ‘Mckinney’ for searching this and all records having this value. |

**Current Restrictions & Possible Enhancements:**

|  |  |
| --- | --- |
| **Restrictions** | **Enhancements** |
|  |  |
| The files to be read are static | Implementation for .json where file format is unknown |
| A console application |  |
| Files are assumed to be valid .json |  |
| Search is based on single property currently |  |
| Files are loaded once, if file changed at run-time updated data is not taken | An option can be provided to reload the files |
| Search is based on a single file | Search could be based on multiple files |
|  | Values can be configured by placing them in a config file which can be read at run-time there by making it a configurable application |