EX 6

Import a JSON file from the command line. Apply the following actions with the data present in the JSON file where, projection, aggregation, remove, count, limit, skip and sort

AIM:

To import a JSON file from the command line and perform operations such as projection, aggregation, removal, counting, limiting, skipping, and sorting using jq on Windows.

PROCEDURE:

1. Install `jq`:
   - Download `jq` from its official website.
   - Extract the `.zip` file and place the `jq.exe` in a folder.
   - Add the folder path to the system's environment variables to make `jq` accessible from any command prompt window.

2. Open Command Prompt:
   - Open the Command Prompt by pressing `Win + R`, typing `cmd`, and pressing Enter.

3. Navigate to the Directory with the JSON File:
   - Use the Command Prompt to navigate to the folder where your JSON file is located.

4. Projection:
   - Use `jq` to select specific fields from the JSON file, displaying only the required data.

5. Aggregation:
   - Perform basic aggregations such as summing up values or calculating the average for numerical fields.

6. Remove Fields:
   - Remove unwanted fields from the JSON data, ensuring only the necessary information is kept.

7. Count Elements:
   - Count the number of elements in the JSON file to understand the data size.

8. Limit the Data:
   - Limit the number of records displayed to focus on a subset of the data.

9. Skip Records:
   - Skip the first few records to process or view a specific part of the data.

10. Sort the Data:
    - Sort the JSON data based on a specific field, either in ascending or descending order.

11. View the Results:
    - After performing each operation, the filtered or modified results will be displayed in the Command Prompt.

EX 6

OUTPUT:

```
C:\jq>jq-windows-amd64.exe ".[].name" datas.json
"Alice"
"Bob"
"Charlie"
```

```
C:\jq>jq-windows-amd64.exe "[.[] | .age] | add / length" datas.json
29
```

```
C:\jq>jq-windows-amd64.exe "[.[] | select(.isEmployed == true)]" datas.json
[
  {
    "id": 1,
    "name": "Alice",
    "age": 28,
    "isEmployed": true,
    "address": {
      "street": "123 Maple Street",
      "city": "Springfield"
    },
    "skills": [
      "Python",
      "Data Analysis"
    ]
  },
  {
    "id": 3,
    "name": "Charlie",
    "age": 25,
    "isEmployed": true,
    "address": {
      "street": "789 Pine Road",
      "city": "Ogdenville"
    },
    "skills": [
      "JavaScript",
      "Web Development"
    ]
  }
]
```

EX 6

```
C:\jq>jq-windows-amd64.exe "length" datas.json
3
```

```
C:\jq>jq-windows-amd64.exe ".[0:2]" datas.json
[
  {
    "id": 1,
    "name": "Alice",
    "age": 28,
    "isEmployed": true,
    "address": {
      "street": "123 Maple Street",
      "city": "Springfield"
    },
    "skills": [
      "Python",
      "Data Analysis"
    ]
  },
  {
    "id": 2,
    "name": "Bob",
    "age": 34,
    "isEmployed": false,
    "address": {
      "street": "456 Oak Avenue",
      "city": "Shelbyville"
    },
    "skills": [
      "Java",
      "Project Management"
    ]
  }
]
```

EX 6

```
C:\jq>jq-windows-amd64.exe ".[1:]" datas.json
[
  {
    "id": 2,
    "name": "Bob",
    "age": 34,
    "isEmployed": false,
    "address": {
      "street": "456 Oak Avenue",
      "city": "Shelbyville"
    },
    "skills": [
      "Java",
      "Project Management"
    ]
  },
  {
    "id": 3,
    "name": "Charlie",
    "age": 25,
    "isEmployed": true,
    "address": {
      "street": "789 Pine Road",
      "city": "Ogdenville"
    },
    "skills": [
      "JavaScript",
      "Web Development"
    ]
  }
]
```

EX 6

```
C:\jq>jq-windows-amd64.exe "sort_by(.age)" datas.json
[
  {
    "id": 3,
    "name": "Charlie",
    "age": 25,
    "isEmployed": true,
    "address": {
      "street": "789 Pine Road",
      "city": "Ogdenville"
    },
    "skills": [
      "JavaScript",
      "Web Development"
    ]
  },
  {
    "id": 1,
    "name": "Alice",
    "age": 28,
    "isEmployed": true,
    "address": {
      "street": "123 Maple Street",
      "city": "Springfield"
    },
    "skills": [
      "Python",
      "Data Analysis"
    ]
  },
  {
    "id": 2,
    "name": "Bob",
    "age": 34,
    "isEmployed": false,
    "address": {
      "street": "456 Oak Avenue",
      "city": "Shelbyville"
    },
    "skills": [
      "Java",
      "Project Management"
    ]
  }
]
```

RESULT:

Thus the experiment to import a JSON file from the command line and perform operations sucas projection,aggregation, removal, counting, limiting, skipping, and sorting using jq on Windows, was completed successfully.