

Title - User Segmentation

Hypothetical Context:

At Licious, we have users from across the country with different food preferences and lifestyle choices. To be able to efficiently serve our customers it is important for us to group / segment our customers based on different criteria periodically.

Problem:

Build a service which effectively matches a given user to one or more of pre-defined, customizable user-groups / segments.

A group can be defined using a rule based configuration on different user attributes. Example,

```
{
  "gender": {
    "operator": "neq",
    "value": "female"
  },
  "or": [
    "preference.food": {
      "operator": "eq",
      "value": "red-meat"
    },
    "order_count": {
      "operator": "gt",
      "value": 100
    }
  ]
}
```

The system should be able to map a given user to a group on successful evaluation of the rules.

Users can be re-segmented multiple times to accommodate their evolving preferences.

Assumptions:

- Groups / segments can be overlapping (One user can be present in multiple segments).
- You can assume any other relevant operators for building the rule engine.

Expectation:

- Clear database design.
- Modular design.
- Handling corner cases in the grouping logic.
- You can use any programming language of your choice.

Submission:

- ZIP file of the code with a clear readme giving instructions to run / execute the code.
- You can send the zip file by email.

For any queries in the problem statement, please contact: +91-8686073938, kumudkumar@licious.com