LOGIN

CLIENT -> SERVER

- POST

```
{
    "command_code": "LOGIN",
    "info": {
        "username": "duongdz",
        "password": "abcdef"
    }
}
```

SERVER -> CLIENT

- METHOD: GET

```
{
    "command_code":"LOGIN",
    "info":{
        "session_id": "AOSJHBGASLGJB",
    "username": "duongdz",
    "elo": 1500/0
    },
    "status_code":"success"/"error"
    "error":""
}
```

REGISTER

CLIENT -> SERVER

```
{
    "command_code": "REGISTER",
    "info": {
        "username": "abc",
        "password": "xyz",
    }
}
```

SERVER -> CLIENT

```
{
    "command_code": "REGISTER",
    "info": {
        "session_id": "AOSJHBGASLGJB",
    "username": "duongdz",
    "elo": 1500
    },
    "status_code": "success"/"error",
    "error": ""
}
```

MATCH-MAKING

CLIENT -> SERVER

- POST METHOD

```
{
    "command_code":"JOIN_QUEUE",
    "info":{
        "mode": "normal"/"ranked",
    "session_id": "AOSJHBGASLGJB"/"",    // NOTE: if session_id length == 0,
then it's a join request from guest
                        // Server must return a new session_id and temporary
username for guest
    }
}
```

SERVER -> CLIENT

```
{
    "command_code":"JOIN_QUEUE",
    "info":{
        "session_id": "AOSJHBGASLGJB"/"ASLJGLJSBGEF",
    "username": "duongdz"/"anon1234",
    }
    "status_code": "success",
    "error": "",
}
```

```
{
    "command_code":"MATCH_FOUND",
    "info":{
    "match_id": 1234,
```

```
            "opponent": "phuc"/"anon1234",
            "elo": "1969"/"",
        }
    }
```

MOVES

CLIENT -> SERVER

- POST METHOD

```
{
    "command_code": "MOVE",
    "info": {
    "match_id": 1234,
        "session_id": "AOSJHBGASLGJB",
        "move_player": "duongdz",
        "move_position": {
            "x": "6",
            "y": "9"
        },
        "state": "valid"/"invalid",
        "result": "win"/"lose"/"draw"/""
    }
}
```

```
{
    "command_code": "DRAW_REQUEST",
    "info": {
    "match_id": 1234,
        "session_id": "AOSJHBGASABCD",
        "move_player": "phuc",
    }
}
```

```
{
    "command_code": "DRAW_CONFIRM",
    "info": {
    "match_id": 1234,
        "session_id": "AOSJHBGASLGJB",
        "move_player": "duongdz",
        "acceptance": true/false
    }
}
```

SERVER -> CLIENT (client hears from server)

- GET

```
{
    "command_code": "MOVE",
    "info": {
    "match_id": 1234,
        "move_player": "duongdz",
        "move_position": {
            "x": "6",
            "y": "9"
        },
        "state": "valid"/"invalid",
        "result": "win"/"lose"/"draw"/""
    },
    "status_code": "success",
    "error": "",
}
```

```
{
    "command_code": "ENDGAME",
    "info": {
    "match_id": 1234,
        "winner":{
            "username": "duongdz",
            "elo": 1510
        },
        "loser":{
            "username": "phuc",
            "elo": 1490
        },
        "draw": true/false
    }
    "status_code": "success"/"error",
    "error": ""
}
```

```
{
    "command_code": "DRAW_REQUEST",
    "info": {
    "match_id": 1234,
        "move_player": "phuc",
    },
    "status_code": "success"/"error",
    "error": ""
}
```

```
  {
      "command_code": "DRAW_CONFIRM",
      "info": {
      "match_id": 1234,
          "move_player": "duongdz",
          "acceptance": true/false
      },
      "status_code": "success"/"error",
      "error": ""
  }
```

LEADERBOARD

CLIENT -> SERVER

```
  ```
  {
  "command_code": "LEADERBOARD"
      "info": {
          "session_id": "AOSJHBGASLGJB",
      "username": "duongdz"
      },
  }
  ```
```

SERVER -> CLIENT

```
  ```
  {
      "command_code": "LEADERBOARD",
      "info": {
      "username": ["duongdz", "phuc", "einh", "lanhonglee"],
      "elo": [1390, 1490, 1470, 1460],
      "rank": [69, 1, 2, 3]
      },
      "status_code": "success"/"error",
      "error": ""
  }
  ```
```

CHAT

CLIENT -> SERVER

```json
{
 "command_code": "CHAT",
 "info": {
     "from_user": "duongdz",
     "to_user": "phuc",
     "message": "hellooooooooooo",
     "message_id": "CHAT1234",
     "match_id": 1234
 }
}
```

SERVER -> CLIENT

```json
{
 "command_code": "CHAT",
 "info": {
     "from_user": "duongdz",
     "to_user": "phuc",
     "message": "helloooooooooo",
     "message_id": "CHAT1234",
     "match_id": 1234
 }
 "status_code": "success"/"error",
     "error": ""
}
```

- Acknowledgement

CLIENT -> SERVER

```json
{
 "command_code": "CHATACK",
 "info": {
     "message_id": "CHAT1234",
     "status": "success"/"error",
     "error": "",
 }
}
```

SERVER -> CLIENT

```json
{
  "command_code": "CHATACK",
```

```
    "info": {
        "message_id": "CHAT1234",
    }
    "status": "success"/"error",
    "error": "",
}
```