Login

Browser   Server

{ "username" : "ishaan",   ⟶ |

   "password" : " Krea123" } |

                                                                    |

        ⟵──────────────────────── |

     Ok { auth-token, profile } | (case I)

) | (case II)

        ⟵────────────────────────
           unautharized

Server → Browser (success)
```
{
  "token": "eyJhbGciOiJIUzI1NiIs...",
  "userProfile": {
    "username": "ishaan",
    "displayName": "Ishaan Kurian"
  }
}
```
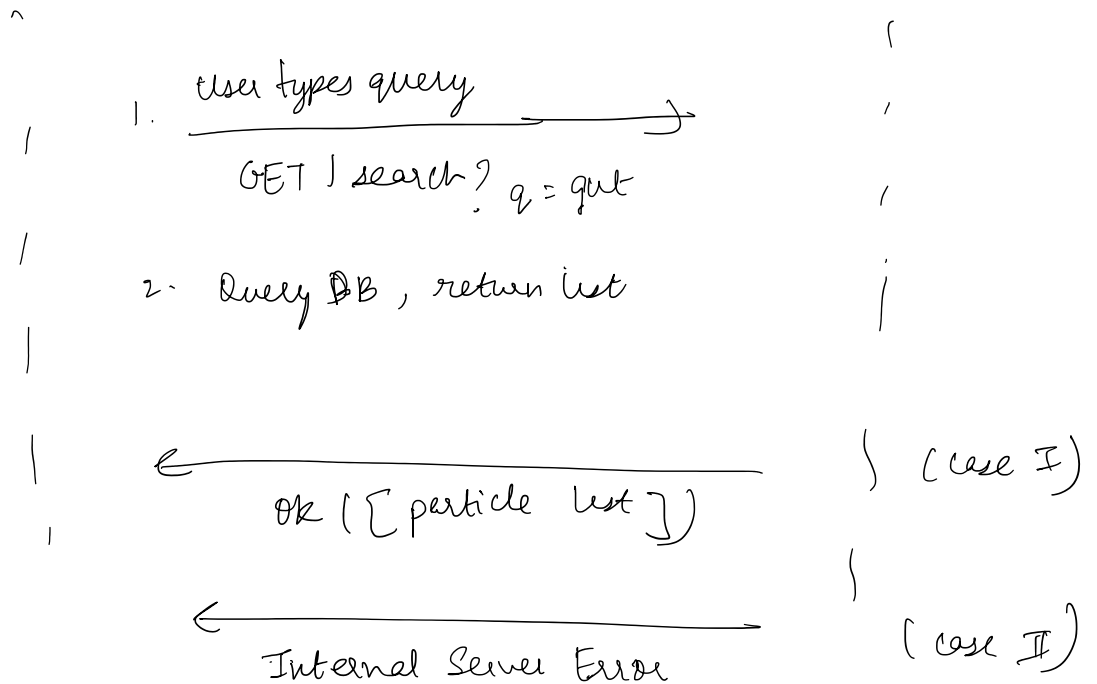
Server → Browser (failure)
```
{
  "error": "Invalid username or password"
}
```

Search Particles

Browser (Search)   Server

1. user types query ———————→
   GET /search? q = qut

2. Query DB, return list

        ←——————————
        OK ([particle list])   } (case I)

        ←——————————
        Internal Server Error   (case II)

Browser → Server (GET /particles?query=searchTerm)
  • Sent as URL query, no JSON body.
Server → Browser (success)

Server → Browser (success)

```
{
  "results": [
    {
      "id": "p123",
      "title": "Meeting notes",
      "snippet": "Discussed project roadmap...",
      "updatedAt": "2025-08-14T08:23:00Z"
    },
    {
      "id": "p124",
      "title": "Shopping list",
      "snippet": "Milk, Bread, Eggs...",
      "updatedAt": "2025-08-14T08:20:00Z"
```
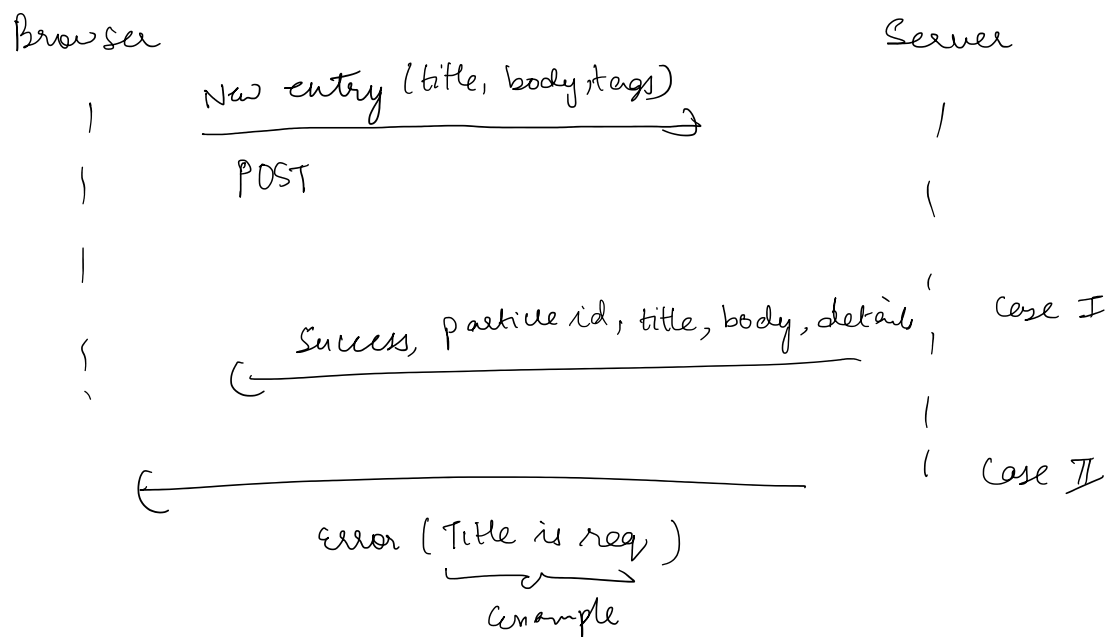
```
    }
  ]
}
```

Server → Browser (failure)

```
{
  "error": "Server unavailable, please try again later"
}
```

Create Particle

Browser → Server (POST /particles)

```
{
  "title": "New Idea",
  "body": "Here's a thought about the next feature...",
  "tags": ["ideas", "feature"]
}
```
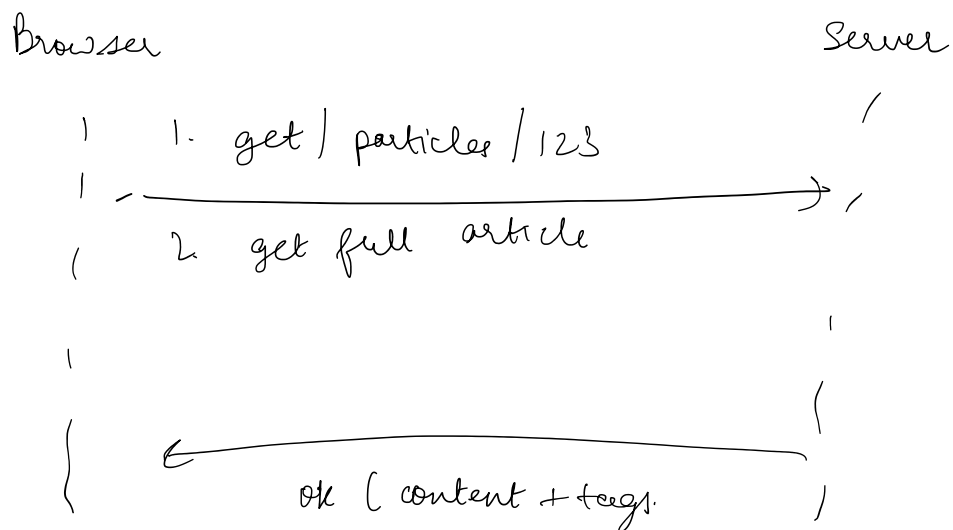
Server → Browser (success)

```
{
  "particleId": "p125",
  "title": "New Idea",
  "body": "Here's a thought about the next feature...",
  "createdAt": "2025-08-14T08:25:00Z"
}
```

Server → Browser (failure)

```
{
  "error": "Title is required"
}
```

View Particle

Browser   Server

1. get / particles / 123

2. get full article

ok (content + tags.

Browser → Server (GET /particles/p125)
(no body)
Server → Browser (success)

```
{
  "id": "p125",
  "title": "New Idea",
```

```
  "body": "Here's a thought about the next feature...",
  "createdAt": "2025-08-14T08:25:00Z",
  "updatedAt": "2025-08-14T08:27:00Z"
}
```
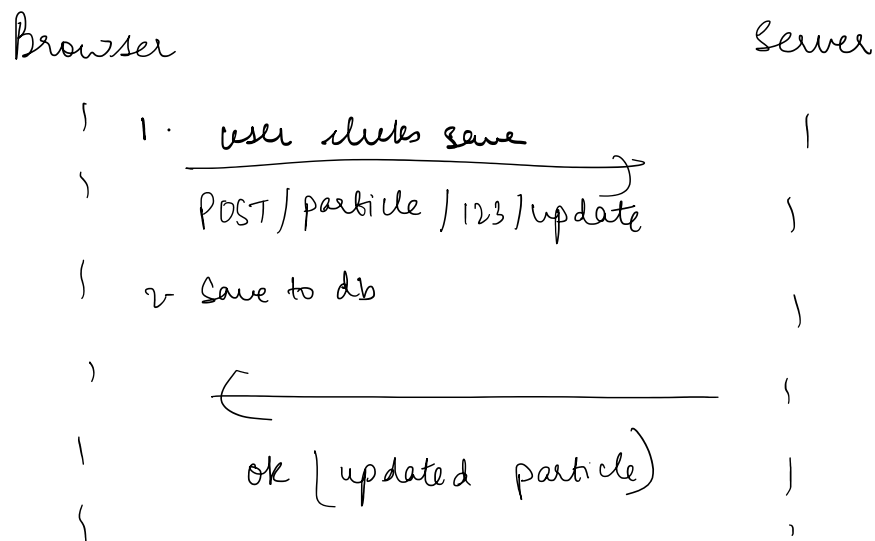
Server → Browser (failure)

```
{
  "error": "Particle not found"
}
```

Edit Particle

Browser → Server (PUT /particles/p125)

```
{
  "title": "Updated Idea",
  "body": "Refined thoughts after discussion...",
  "tags": ["ideas", "refined"]
}
```

Server → Browser (success)

```
{
  "id": "p125",
```

```
  "title": "Updated Idea",
  "body": "Refined thoughts after discussion...",
  "updatedAt": "2025-08-14T09:00:00Z"
}
```

Server → Browser (failure)

```
{
  "error": "Cannot update: particle not found"
}
```