Once the user registers, they proceed to login to obtain the access Token that expires after 30 minutes, and a refresh token (expires after 1 day) is also generated, the refresh token is stored in the db. This stored refresh token is used with the Refresh method to generate a new access and refresh token, the old refresh is deleted. When the user logs out, the refresh token is removed from the database.

To perform the operation of finding the next permutation, the user must be registered and have logged in, otherwise it receives a 401 Unauthorized.

|  |  |  |  |
| --- | --- | --- | --- |
| Id | Email | Username | Password |
| B86D4CBD-8487-4F54-A19A-674C483C2C8A | testUser@testUser.com | testuser | pass |
| 48A1F63C-7D1A-41DC-861D-EEC08031ABF8 | ale@ale.com | aleVT | pass |

Access methods.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nombre | Método | Data | URL | Response |
| Register | POST | {    "email": "testUser@testUser.com",    "username": "testuser",    "password": "pass",    "confirmPassword": "pass"  } | https://localhost:7107/api/Authentication/register | {      "id": "b86d4cbd-8487-4f54-a19a-674c483c2c8a",      "email": "testUser@testUser.com",      "username": "testuser",      "password": "pass"  } |
| Login | POST | {    "username": "testuser",    "password": "pass"  } | https://localhost:7107/api/Authentication/login | {      "accesToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJJZCI6ImI4NmQ0Y2JkLTg0ODctNGY1NC1hMTlhLTY3NGM0ODNjMmM4YSIsImh0dHA6Ly9zY2hlbWFzLnhtbHNvYXAub3JnL3dzLzIwMDUvMDUvaWRlbnRpdHkvY2xhaW1zL2VtYWlsYWRkcmVzcyI6InRlc3RVc2VyQHRlc3RVc2VyLmNvbSIsImh0dHA6Ly9zY2hlbWFzLnhtbHNvYXAub3JnL3dzLzIwMDUvMDUvaWRlbnRpdHkvY2xhaW1zL25hbWUiOiJ0ZXN0dXNlciIsIm5iZiI6MTY5NTA5ODY4NywiZXhwIjoxNjk1MDk4OTg3LCJpc3MiOiJodHRwczovL2xvY2FsaG9zdDo3MTA3IiwiYXVkIjoiaHR0cHM6Ly9sb2NhbGhvc3Q6NzEwNyJ9.cp8FPiE0GIruSPrAp9O8M3GznGoJXnHHOqw-dyPO\_zk",      "refreshToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJuYmYiOjE2OTUwOTg2ODcsImV4cCI6MTY5NTE4NTA4NywiaXNzIjoiaHR0cHM6Ly9sb2NhbGhvc3Q6NzEwNyIsImF1ZCI6Imh0dHBzOi8vbG9jYWxob3N0OjcxMDcifQ.VJ5z\_R0Lq06vtlw9pxyz4hmwgIVKNgWk6xCPiuKZtJ0"  } |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nombre | Método | Data | URL | Response |
| Refresh | POST | {    "refreshToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJuYmYiOjE2OTUwOTcwNjcsImV4cCI6MTY5NTE4MzQ2NywiaXNzIjoiaHR0cHM6Ly9sb2NhbGhvc3Q6NzEwNyIsImF1ZCI6Imh0dHBzOi8vbG9jYWxob3N0OjcxMDcifQ.RPwFzqeIS0aEE9eHJMX6QosvCKNd3eLQnE7Zx9PNL7Q"  } | https://localhost:7107/api/Authentication/refresh | {      "accesToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJJZCI6ImI4NmQ0Y2JkLTg0ODctNGY1NC1hMTlhLTY3NGM0ODNjMmM4YSIsImh0dHA6Ly9zY2hlbWFzLnhtbHNvYXAub3JnL3dzLzIwMDUvMDUvaWRlbnRpdHkvY2xhaW1zL2VtYWlsYWRkcmVzcyI6InRlc3RVc2VyQHRlc3RVc2VyLmNvbSIsImh0dHA6Ly9zY2hlbWFzLnhtbHNvYXAub3JnL3dzLzIwMDUvMDUvaWRlbnRpdHkvY2xhaW1zL25hbWUiOiJ0ZXN0dXNlciIsIm5iZiI6MTY5NTA5ODg0MCwiZXhwIjoxNjk1MDk5MTQwLCJpc3MiOiJodHRwczovL2xvY2FsaG9zdDo3MTA3IiwiYXVkIjoiaHR0cHM6Ly9sb2NhbGhvc3Q6NzEwNyJ9.JKZh8wKlh6EmEZ\_q0IqAiHZ7RstQSyjrq2nkCa5a9LA",      "refreshToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJuYmYiOjE2OTUwOTg4NDAsImV4cCI6MTY5NTE4NTI0MCwiaXNzIjoiaHR0cHM6Ly9sb2NhbGhvc3Q6NzEwNyIsImF1ZCI6Imh0dHBzOi8vbG9jYWxob3N0OjcxMDcifQ.d57jPVbPZdvzzaT\_b9tWQ6Nia3Cjeg-BxDX49hWGNdM"  } |
| Logout | DELET | Bearer Authentication with the accesToken. | https://localhost:7107/api/Authentication/logout | 204 No Content |

Operation method.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nombre | Método | Data | URL | Response |
| NextPermutation | GET | Use Bearer Authorization with the accesToken. | https://localhost:7107/api/NextPermutation/1%2C2%2C3%2C6%2C5%2C4 | {      "result": {          "code": 0,          "message": "Next permutation find.",          "vector": "1,2,3,6,5,4",          "next": "1,2,4,3,5,6"      },      "id": 162,      "exception": **null**,      "status": 5,      "isCanceled": **false**,      "isCompleted": **true**,      "isCompletedSuccessfully": **true**,      "creationOptions": 0,      "asyncState": **null**,      "isFaulted": **false**  } |