We used H2 database in our application which is provided by spring boot. Below are the sample data we created using below sql script. Script is run when we launch our application. App is deployed on embedded tomcat server which spring boot offers.

A screen shot of a computer

Description automatically generated

Customer data

A screenshot of a computer

Description automatically generated

Transaction data

A screenshot of a computer

Description automatically generated

REST Endpoints in the application

1. Get all customer data with respective transaction data and reward points <http://localhost:8080/api/customers>

Sample response:

[

    {

        "id": 1,

        "name": "Koushik",

        "transactions": [

            {

                "points": 0,

                "id": 2,

                "total": 50.0,

                "description": "Purchase 2",

                "saveDate": "2020-10-24T15:20:10.000+0000"

            },

            {

                "points": 90,

                "id": 3,

                "total": 120.0,

                "description": "Purchase 3",

                "saveDate": "2020-10-24T15:20:10.000+0000"

            },

            {

                "points": 0,

                "id": 8,

                "total": 25.6,

                "description": "Purchase 200",

                "saveDate": "2020-10-17T17:20:10.000+0000"

            },

            {

                "points": 50,

                "id": 1,

                "total": 100.0,

                "description": "Purchase 1",

                "saveDate": "2020-10-25T15:20:10.000+0000"

            },

            {

                "points": 250,

                "id": 11,

                "total": 200.0,

                "description": "Purchase 5",

                "saveDate": "2020-10-24T15:20:10.000+0000"

            }

        ],

        "rewardPoints": 390,

        "totalPurchases": 495.6

    },

    {

        "id": 2,

        "name": "Venkatesh",

        "transactions": [

            {

                "points": 30,

                "id": 9,

                "total": 80.5,

                "description": "Purchase 201",

                "saveDate": "2020-10-19T20:00:10.000+0000"

            },

            {

                "points": 15,

                "id": 5,

                "total": 65.75,

                "description": "Purchase 20",

                "saveDate": "2020-10-26T15:20:10.000+0000"

            },

            {

                "points": 200,

                "id": 4,

                "total": 175.32,

                "description": "Purchase 10",

                "saveDate": "2020-10-26T15:20:10.000+0000"

            }

        ],

        "rewardPoints": 245,

        "totalPurchases": 321.57

    },

    {

        "id": 3,

        "name": "Satwik",

        "transactions": [

            {

                "points": 270,

                "id": 6,

                "total": 210.5,

                "description": "Purchase 30",

                "saveDate": "2020-10-26T15:20:10.000+0000"

            },

            {

                "points": 0,

                "id": 7,

                "total": 42.8,

                "description": "Purchase 31",

                "saveDate": "2020-10-25T22:10:10.000+0000"

            },

            {

                "points": 82,

                "id": 10,

                "total": 116.14,

                "description": "Purchase 202",

                "saveDate": "2020-10-22T16:30:10.000+0000"

            }

        ],

        "rewardPoints": 352,

        "totalPurchases": 369.44

    }

]

1. Get transaction data and reward points for that specific customer [http://localhost:8080/api/customers/{id}](http://localhost:8080/api/customers/%7bid%7d)

Sample response:

{

    "id": 1,

    "name": "Koushik",

    "transactions": [

        {

            "points": 0,

            "id": 2,

            "total": 50.0,

            "description": "Purchase 2",

            "saveDate": "2020-10-24T15:20:10.000+0000"

        },

        {

            "points": 50,

            "id": 1,

            "total": 100.0,

            "description": "Purchase 1",

            "saveDate": "2020-10-25T15:20:10.000+0000"

        },

        {

            "points": 90,

            "id": 3,

            "total": 120.0,

            "description": "Purchase 3",

            "saveDate": "2020-10-24T15:20:10.000+0000"

        },

        {

            "points": 0,

            "id": 8,

            "total": 25.6,

            "description": "Purchase 200",

            "saveDate": "2020-10-17T17:20:10.000+0000"

        },

        {

            "points": 250,

            "id": 11,

            "total": 200.0,

            "description": "Purchase 5",

            "saveDate": "2020-10-24T15:20:10.000+0000"

        }

    ],

    "rewardPoints": 390,

    "totalPurchases": 495.6

}