# Prequisite

1. Database (MySQL Installer):
2. Download link: <https://dev.mysql.com/downloads/installer/>
3. Execute database.sql to create database and tables.
4. Create user ID and grant permissions it
   1. User: user1@localhost,
   2. Password: user@123
5. Programming Language: Java
6. Framework: Spring Boot

# End Points

**1. Create Household**

1. This endpoint lets you create the household (housing unit)
2. Household fields:
   1. HousingType (Possible options: Landed, Condominium, HDB)

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/household/ |
| METHOD | POST |
| Request Body | {"householdType":"HDB"} |

**2. Add a family member to household**

1. This endpoint lets you add a family member to the household
2. Family member detail fields:
   1. Name
   2. Gender
   3. MaritalStatus
   4. Spouse (either name of spouse or primary key)
   5. OccupationType (Options: Unemployed, Student, Employed)
   6. AnnualIncome
   7. DOB

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/member/ |
| METHOD | POST |
| Request Body | {  "memberName" : "Allan",  "gender" : "Male",  "maritalStatus" : "Single",  "spouse" : "Allan\_Spouse",  "occupationType" : "Unemployed",  "annualIncome" : 10000,  "dob" : "2020-02-02",  "householdID" : 1  } |

**3. List households**

1. This endpoint lists all the households in the database
2. Fields:
   1. HouseholdType
   2. FamilyMembers
      * Name
      * Gender
      * MaritalStatus
      * Spouse (either name of spouse or primary key)
      * OccupationType (Options: Unemployed, Student, Employed)
      * AnnualIncome
      * DOB

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/household/ |
| METHOD | GET |

**4. Show household**

1. This endpoint shows the details of a household in the database
2. Fields:
   1. HouseholdType
   2. FamilyMembers
      * Name
      * Gender
      * MaritalStatus
      * OccupationType (Options: Unemployed, Student, Employed)
      * AnnualIncome
      * DOB

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/household/{householdID} |
| METHOD | GET |

**5. Search for households and recipients of grant disbursement endpoint.**

1. This endpoint should accept search parameters (eg. Household size, total income) in the URL and return results based on the criteria below.
2. You may include assumptions about each result in the README.
3. Grant Schemes:

### Student Encouragement Bonus

List households and qualifying family members for Student Encouragement Bonus

1. Households with children of less than 16 years old.
2. Household income of less than $150,000

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/grantDisbursement |
| METHOD | GET |
| Parameter | ?type=Student Encourage Bonus |

### Family Togetherness Scheme

List households and qualifying family members for Family Togetherness Scheme

1. Households with husband & wife
2. Has child(ren) younger than 18 years old.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/grantDisbursement |
| METHOD | GET |
| Parameter | ?type= Family Togetherness Scheme |

### Elder Bonus

List households and qualifying family members for Elder Bonus

1. HDB household with family members above the age of 50.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/grantDisbursement |
| METHOD | GET |
| Parameter | ?type= Elder Bonus |

### Baby Sunshine Grant

List households and qualifying family members for Baby Sunshine Grant

1. Household with young children younger than 5.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/grantDisbursement |
| METHOD | GET |
| Parameter | ?type= Baby Sunshine Grant |

### YOLO GST Grant

List households that qualify for the YOLO GST Grant

1. HDB households with annual income of less than $100,000.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/grantDisbursement |
| METHOD | GET |
| Parameter | ?type= YOLO GST Grant |

# Optional End-Points

### 1. Delete household

1. Remove Household and family members.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/household/{householdID} |
| METHOD | DELETE |

### 2. Delete Family Member

1. Remove Family Member from the Household.

|  |  |
| --- | --- |
| URL | http://localhost:8080/api/member/{memberID} |
| METHOD | DELETE |