**Semester Project Documentation**

**Semester Project Title**:

**Student Details**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Student Name | Student Reg # | Student Degree |
| Student-1 | Hassan Ahmed | 2022568 | AI |
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**Main Features**

**1: Admin:**

* Approving Members.
* Approving Item requests
* Restocking Inventory

**2:Members:**

* Get Membership.
* Get items from Inventory.
* Put-in requests for items that are out of stock.

**Types of Users**

1: Admin

2: Members

**Requirements Breakdown**

*(Write requirements of each feature by numbering. For example: Requirements of feature # 1. It will be mentioned as 1.1, 1.2. Similarly for feature # 2 it will be 2.1, 2.2, 2.3 … etc.)*

1:

1. Approving Members
   1. Incoming requests from new members.
   2. Checking data with already existing members.
   3. Approving or declining membership.
2. Approving Item requests

2.1 Checking Incoming Requests from users.

2.2 Checking if admin has enough stock or not.

2.3Approving or declining requests based on their demands.

3. Restocking Inventory.

3.1 Checking for items that are running low.

3.2 Restocking Inventory.

4. Get Membership.

4.1 Choose a unique username and password for an account.

4.2 Put in request to administer for approval of your membership.

4.3 Request might get accepted or rejected.

5. Get Items from Inventory

5.1 Check inventory

5.2 Check availability.

5.3 Get items.

6. Item Requests

6.1 Check for items.

6.2 Check availability.

6.3 Request If items are less than required items.

**Features to Codding Matrix**

*(In the following table you will mention the following items for each feature, mention the items in each column for each feature of your application)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr  no. | Feature Name | OOP Type Used | Functions Created | Variables / Obj Created |
| 1. | Approving Members | 1.Operator Overloading.  2. Inheritance  3. | Check\_new\_member\_req()  Check\_all\_members() | Members[50]  Memberreq[10]  Num\_members  User\_reqs |
| 2. | Restocking Inventory | 1. Inheritance 2. Abstraction 3. Pure Virtual | Check\_all\_items()  Restock\_inventory() | Item\* items[5] |
| 3. | Get MemberShip | 1. Inheritance 2. Encapsulation | New\_member\_req() | Member members[50] |
| 4. | Item Request | 1. Abstraction 2. Inheritance | Get\_items()  Check\_all\_itmes() | Item\* items[5]  Requests item\_reqs[10] |