



# Uttara University

Excellence in Higher Education and Research

## Project Report

**Subject Name:** Object Oriented Programming.

**Subject Code:** CSE0613202

### Submitted By:

**Name & ID:** Taspriya Sultana (2243081046)

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**Name & ID:** Fahim Furqan (2243081169)

**Name & ID:** Md Tanvir Ahmed (2243081177)

**Name & ID:** Md Abidul Islam Khan (2243081179)

### Submitted To:

**Name** : Nahrin Jannat

**Designation:** Lecturer at Uttara University

**Project Name:** NGO Platform Management System.

**Objective :** The main objective of this project is to design and develop a console-based NGO Fund Management System using C# and Object-Oriented Programming (OOP) principles, which allows users to donate to different social welfare funds and enables administrators to manage fund information securely.

**Review & Limitations:**

- 1) Managing Multiple Classes and Relationships .
- 2) Sharing Collected Money Across Classes.
- 3) Operator Overloading Implementation.
- 4) Handling Nested Menu Logic.
- 5) The most difficult aspect of this project was extending the system with fund tracking.

**Members Part & Features used:**

**Al-Amin (2243081166)**

Created 1 class for Admins Access, 2 Interface and 1 Abstract class to inherit interfaces methods operations and declare abstract method.

**Features Used:**

**Class --** Admin

**Private Variables--** 1)username , 2)password

**Public Variables--** 1)TotalRequiredMoney , 2) TotalCollectedMoney.

**Constructor--** 1) public Admin().

**Methods--** 1) get & set methods, 2) Login() , 3)AdminMenu().

**Interface--** 1) display , 2)donate.

**Virtual Methods--** 1) Display() , 2) Donate().

**Abstract Class--** 1) BaseCategory.

**Constructor--** 1) public BaseCategory()

**Abstract Method--** 1)SpecialFeature().

## Abidul Islam Khan (2243081179)

Created 1 Derived class , 1 static class for getting same Donation information for everyone and 1 Base Class for Subcategory classes to inherit.

### Features Used:

<b>Derived Class --</b>	FundCategory.
<b>Constructor--</b>	1) public FundCategory().
<b>Operator Overloading--</b>	1) Sum Opeartor.
<b>Override Method--</b>	1) SpecialFeatures().
<b>Void Method--</b>	1) CategoryMenu().
<b>Static Class--</b>	1) Donation class
<b>Static Method--</b>	1) MakeDonation().
<b>User Input--</b>	Donating Information by user.
<b>Class --</b>	1) FundGroup.
<b>Constructor--</b>	1)public FundGroup()
<b>Virtual Method--</b>	1)LoadDefaultCategories()
<b>Void Method--</b>	1) Menu()
<b>Object Created--</b>	Topic1- Topic5.
<b>Loop--</b>	1) while loop.
<b>Conditional Statements--</b>	1) if , else.

## **Fahim Furqan (2243081169)**

Created 3 Derived class For getting Subcategories options.

### **Features Used:**

- Derived Classes --** 1) DisasterReliefFund , 2) WarzoneReliefFund, 3) AnimalShelterFund.
- Constructor--** 1) public DisasterReliefFund(), 2) public WarzoneReliefFund(),  
3) public AnimalShelterFund(). With new arugment passing by base.
- Override methods--** 1) LoadDefaultCategories().
- Object Created--** Topic1-Topic5.

## **Tanvir Ahmed (2243081177)**

Created 2 Derived Classes for getting Subcategories Options.

### **Features Used:**

- Derived Classes--** 1) HealthcareSupportFund, 2) EducationSupportFund.
- Constructor--** 1) public HealthCareSupportFund() , 2) public EducationSupportFund().  
With new argument passing by base.
- Override Methods--** 1) LoadDefaultCategories().
- Object Created --** Topic1- Topic5.

## Taspriya Sultana (2243081046)

Created the main class to control the entire code flow.

### Features Used:

- Class--** Main class.
- Object Created--** 1) Admin , 2) Disaster, 3) Warzone ,  
4) Animal, 5) Health & 6) Edu.
- Loop--** 1) While Loop.
- Conditional Statements--** 1) Nested If, else.

### Output:

```
NGO FUND PLATFORM
1. Disaster Relief Fund
2. Warzone Relief Fund
3. Animal Shelter Fund
4. Healthcare Support Fund
5. Education Support Fund
6. Admin Login
0. Exit
Choose: 4
```

- Choosing 4th option as Fund Option

```
Healthcare Support Fund
1. Vaccines
2. Hospital Tools
3. Free Checkup Camps
4. Health Awareness
5. Patient Help
0. Back
Choose: 3
```

- Choosing 3rd option as Sub Category

```
Free Checkup Camps
1. Donate
0. Back
Choose: 1
```

- Choosing 1 to Donate.

```
Donation for Free Checkup Camps
Your Name: Taspriya Sultana
Email ID: taspriya11@gmail.com
Country: Bangladesh

Choose ID Type:
1. Passport
2. NID
Select (1/2): 2
Enter Payment Method: Mobile Banking
NGO's Payment Number: 01293734445
Donation Amount: 2000

Thank you for Donating.
Donate again? (y/n): n
```

- Giving Donating Information by giving n leaving donate option.

### Admin's Options:

```
NGO FUND PLATFORM
1. Disaster Relief Fund
2. Warzone Relief Fund
3. Animal Shelter Fund
4. Healthcare Support Fund
5. Education Support Fund
6. Admin Login
0. Exit
Choose: 6
```

```
Admin Username: admin
Admin Password: 1234
Admin Login Successful!
```

- Giving Admins Informations and login in for any updates or changes.

```
Select Fund (1-5): 4

--- ADMIN PANEL (Healthcare Support Fund) ---
1. Change Fund Name
2. Change Category Name
3. Change Required Money
4. View Fund Money Status
0. Logout
```

- Can choose any other options for more updates in site. By choosing Logout option can comeback to home page .

### **Discussion:**

- 1) The NGO Fund Management System is developed as a console-based application to demonstrate the practical implementation of Object-Oriented Programming concepts using C#.
- 2) The use of abstraction, inheritance, polymorphism, encapsulation, and operator overloading makes the system modular, reusable, and easy to extend.
- 3) In future it can be Updated and also can add graphical interfaces.