PROJECT REPORT

Submitted by

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Under the Guidance of

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BONAFIDE CERTIFICATE

Certified that this Project Report titled **"CLOTHING MANAGEMENT SYSTEM"** is the bonafide work done by **Vasan Lennin - RA2211026010106, Gudimella Saketa Sri Ramacharyulu - RA2211026010111 and Archith Ramesh - RA2211026010110** who completed the project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other work.

SIGNATURE	SIGNATURE
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PROBLEM STATEMENT

The Clothing Management System is a project designed in C++ that enables users to efficiently manage their clothing items. This system allows users to perform various tasks such as viewing all clothing items, adding new items, removing existing items, searching for specific items, and updating item details. By utilizing the concepts of object-oriented programming, stream class, and file handling in C++, this project serves as a comprehensive example for understanding these concepts. The system stores and organizes essential information about clothing products, including the product name, size, color, quantity, and price. This project can serve as a foundation for developing similar product management systems across different industries.

MODULES OF PROJECT

The modules used in this project are as follows:

1. **<iostream>: This module is used for input/output operations.**
2. **<fstream>: This module is used for file handling operations.**
3. **<string.h>: This module is used for string manipulation functions.**
4. **<conio.h>: This module is used for console input/output operations.**
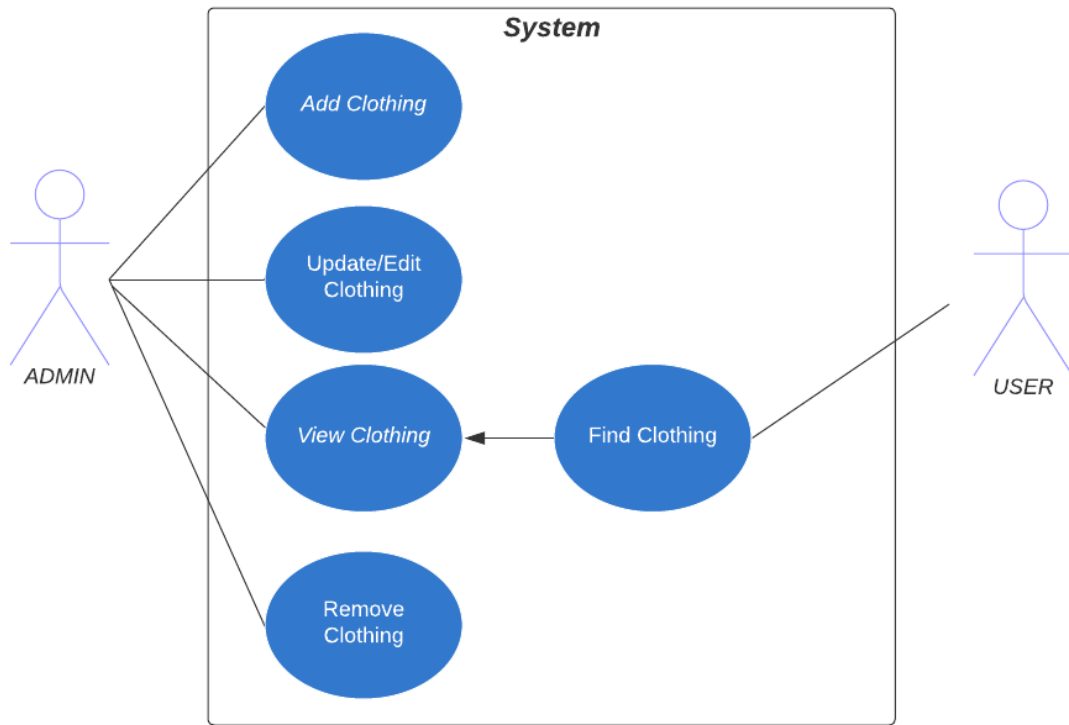
Our project, the Clothing Management System, consists of a menu that offers various options such as viewing all clothes, adding a new item, editing an item, deleting an item, finding a specific item, and exiting the program. The program utilizes switch cases to execute the code corresponding to the selected option.

The project includes a class named clothesinfo that encapsulates the necessary functions for managing clothing items. All the variables are declared under the private access specifier within the class. Each option in the menu corresponds to a specific function in the class, such as **add()** for adding a new clothing item, **viewallclothes()** for displaying all clothes, **update()** for editing item details, **cut()** for deleting an item, and **find()** for searching for a specific item. These functions are accessed through an object named cloth of the **clothesinfo** class.
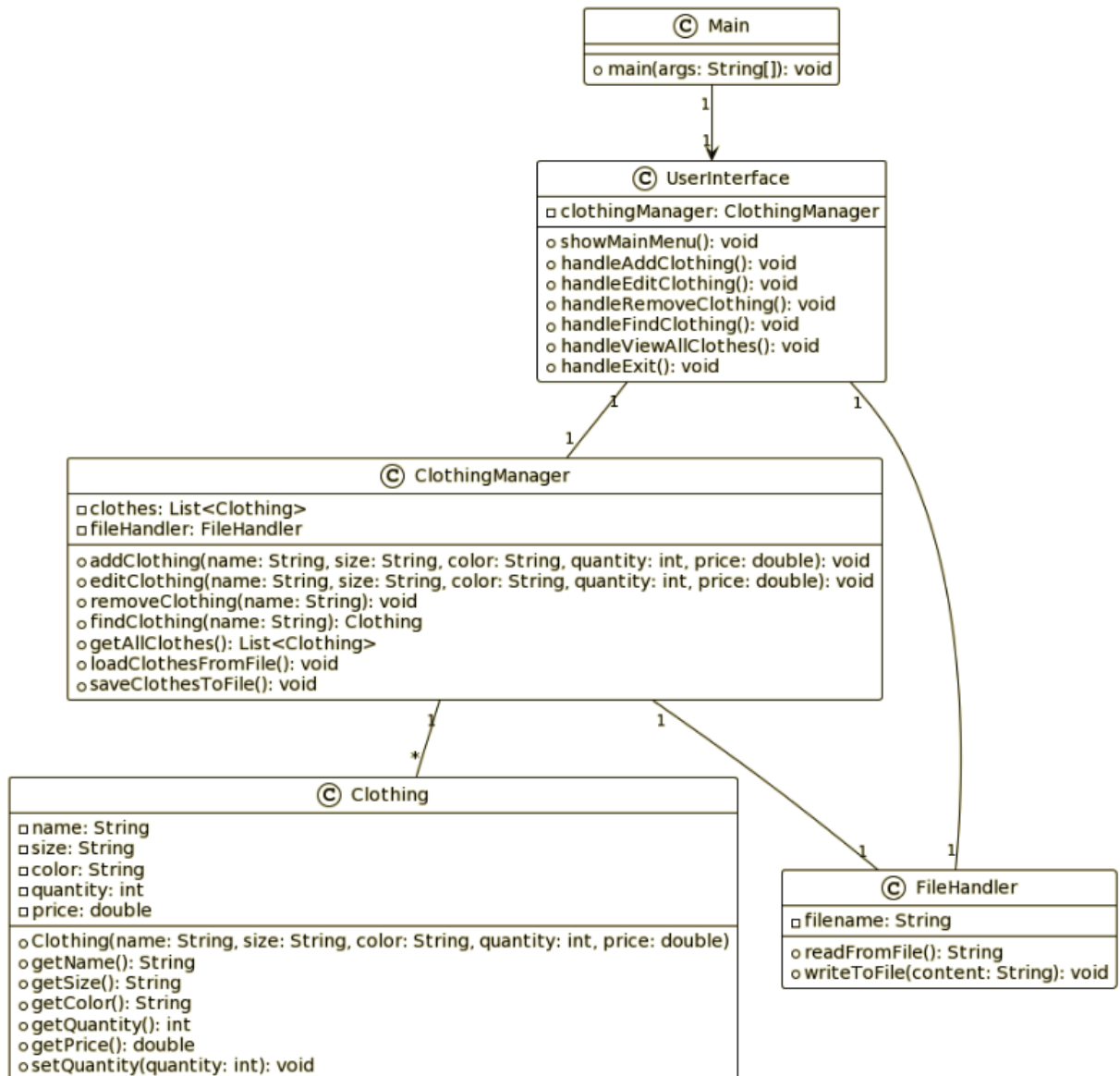
The **system("cls")** function is used to clear the screen and display the relevant information based on the chosen option.
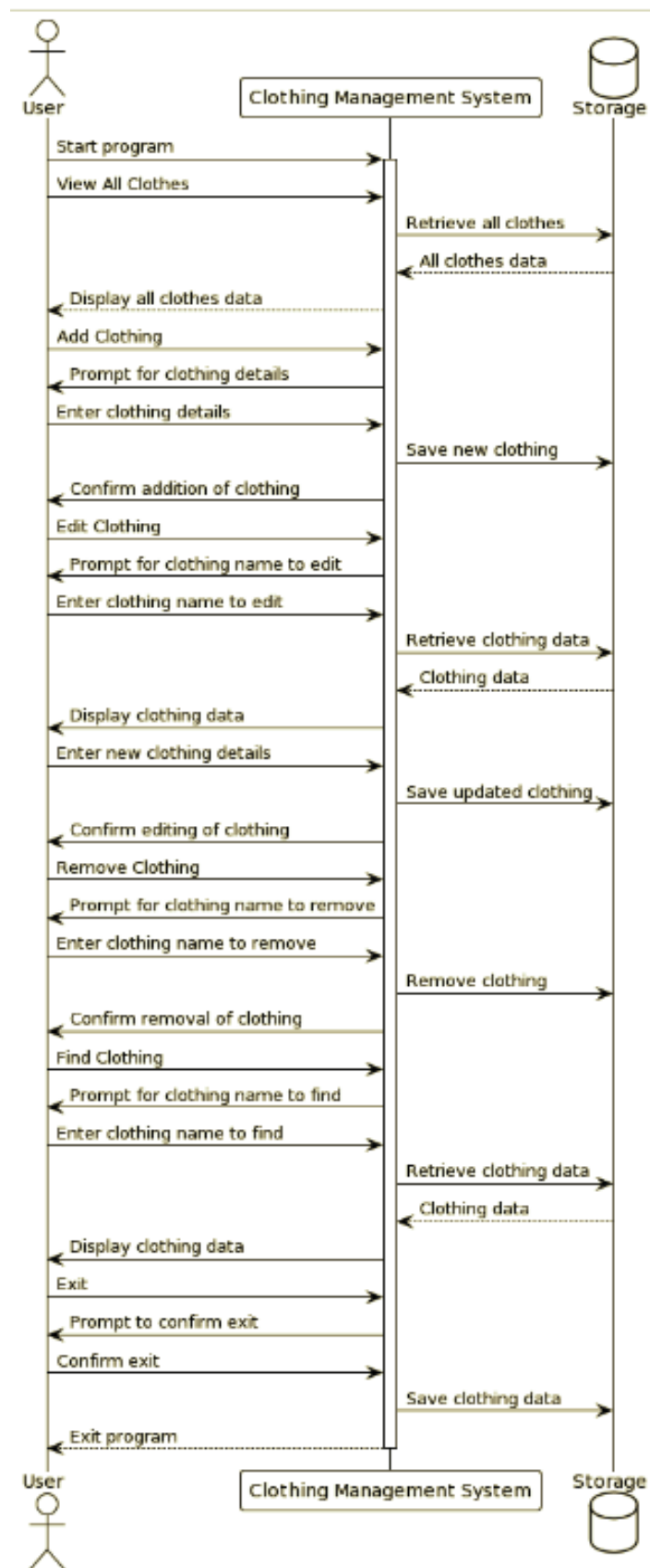
UML DIAGRAMS

USE CASE DIAGRAM:

CLASS DIAGRAM:

© Main

○ main(args: String[]): void

1

1

© UserInterface

□ clothingManager: ClothingManager

○ showMainMenu(): void
○ handleAddClothing(): void
○ handleEditClothing(): void
○ handleRemoveClothing(): void
○ handleFindClothing(): void
○ handleViewAllClothes(): void
○ handleExit(): void

1   1

1

© ClothingManager

□ clothes: List<Clothing>
□ fileHandler: FileHandler

○ addClothing(name: String, size: String, color: String, quantity: int, price: double): void
○ editClothing(name: String, size: String, color: String, quantity: int, price: double): void
○ removeClothing(name: String): void
○ findClothing(name: String): Clothing
○ getAllClothes(): List<Clothing>
○ loadClothesFromFile(): void
○ saveClothesToFile(): void

1   1

*

© Clothing

□ name: String
□ size: String
□ color: String
□ quantity: int
□ price: double

○ Clothing(name: String, size: String, color: String, quantity: int, price: double)
○ getName(): String
○ getSize(): String
○ getColor(): String
○ getQuantity(): int
○ getPrice(): double
○ setQuantity(quantity: int): void

1   1

© FileHandler

□ filename: String

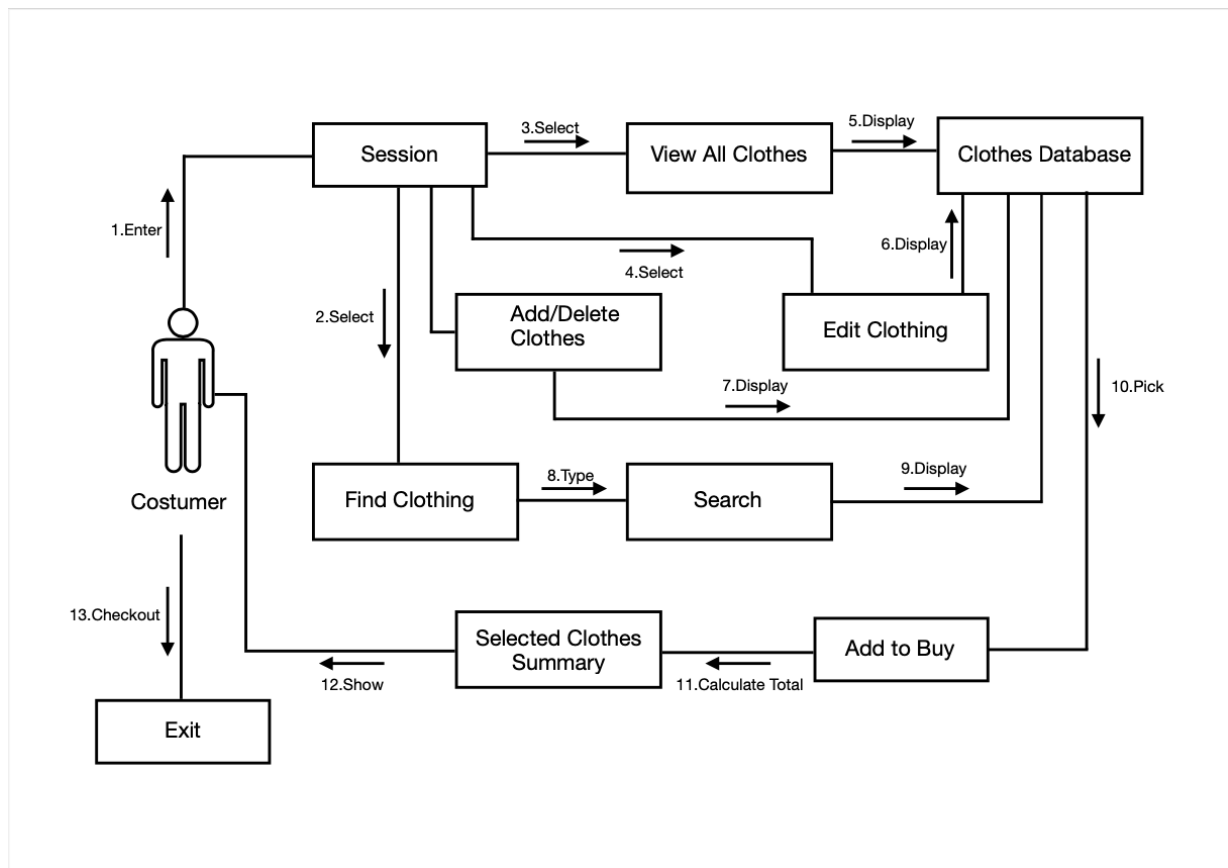○ readFromFile(): String
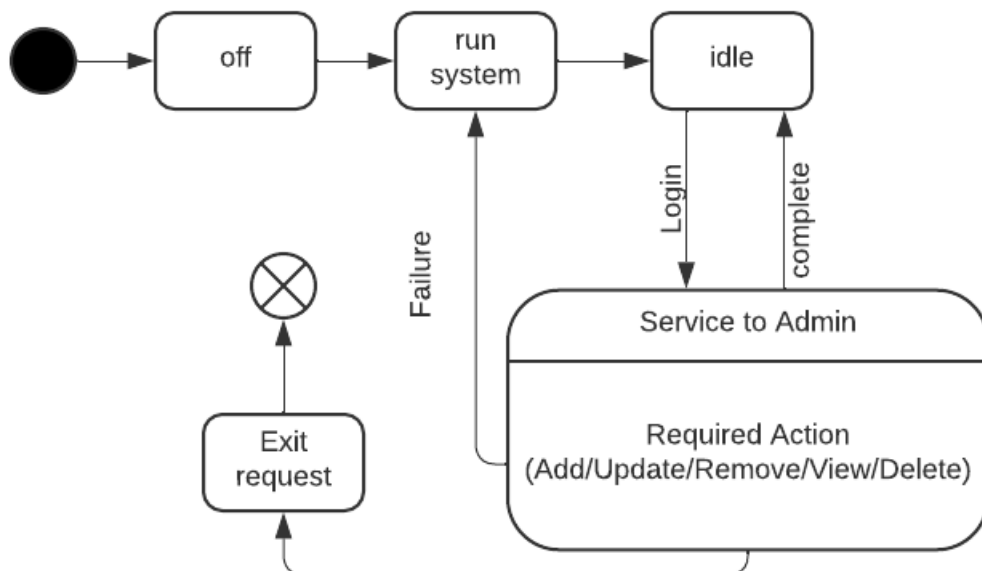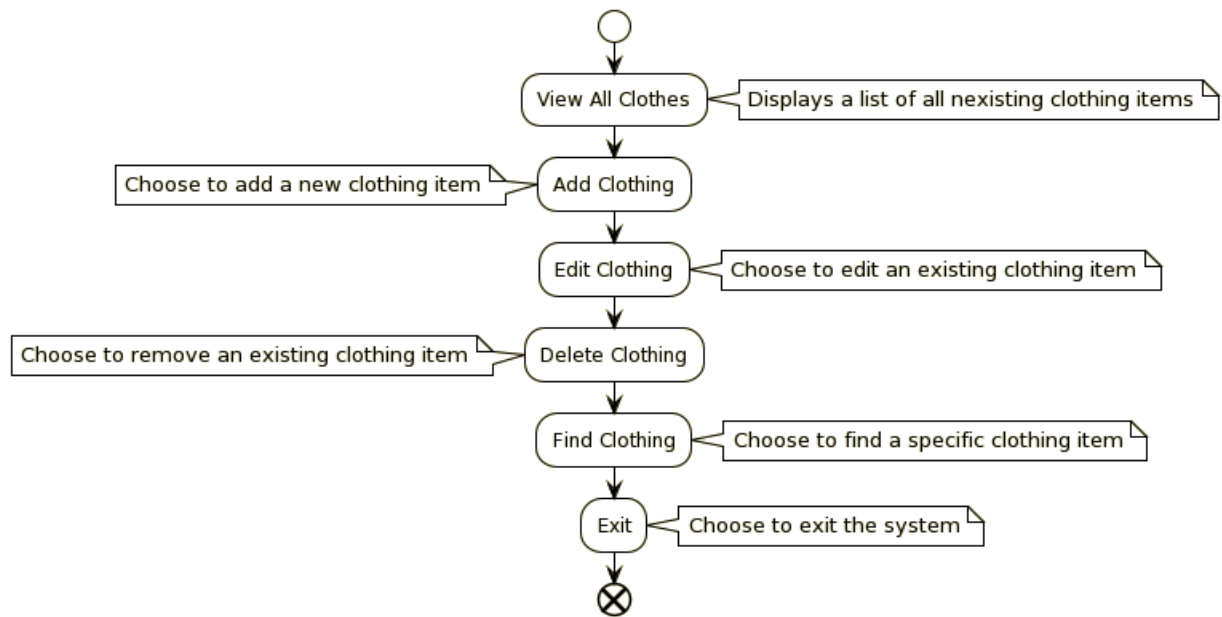○ writeToFile(content: String): void

SEQUENCE DIAGRAM:
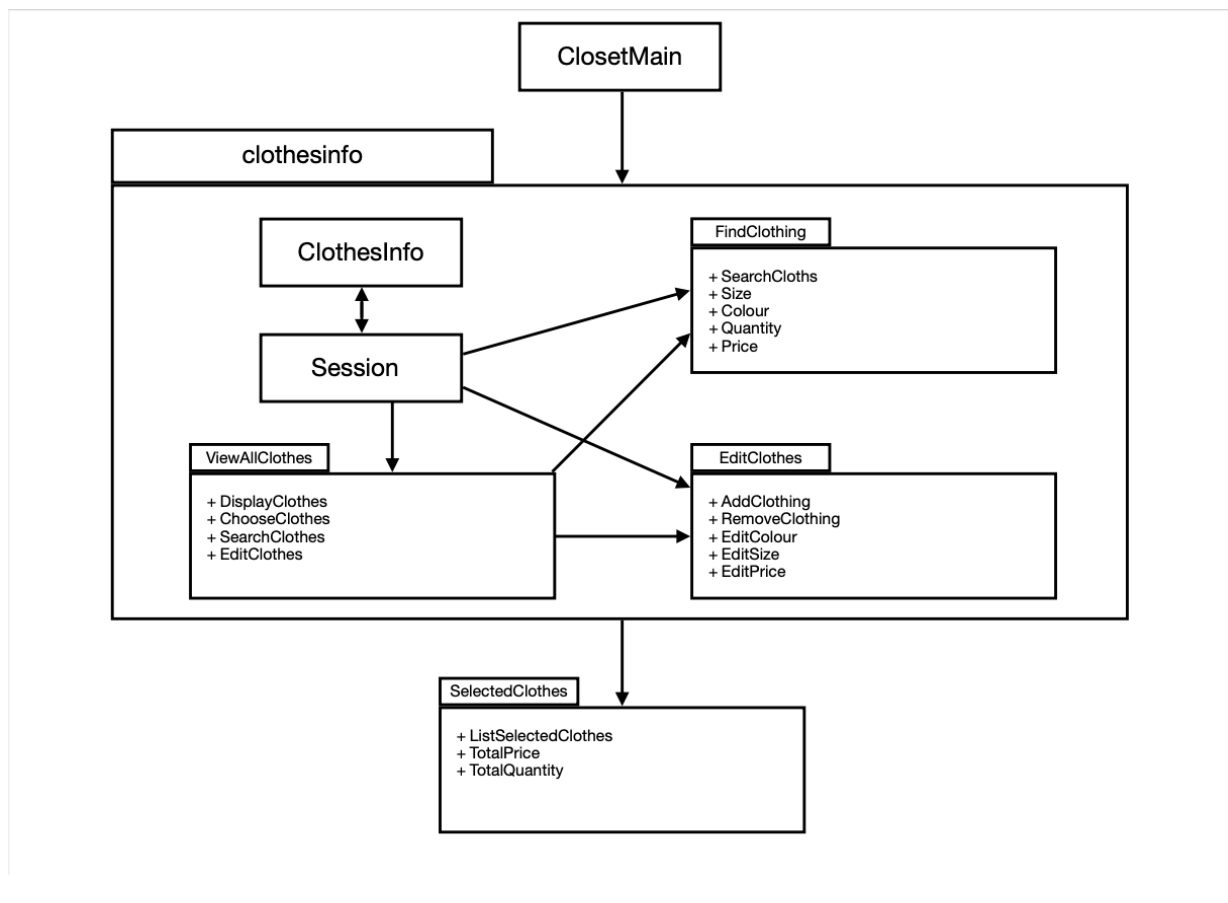
COLLABORATION DIAGRAM:

STATE CHART DIAGRAM:
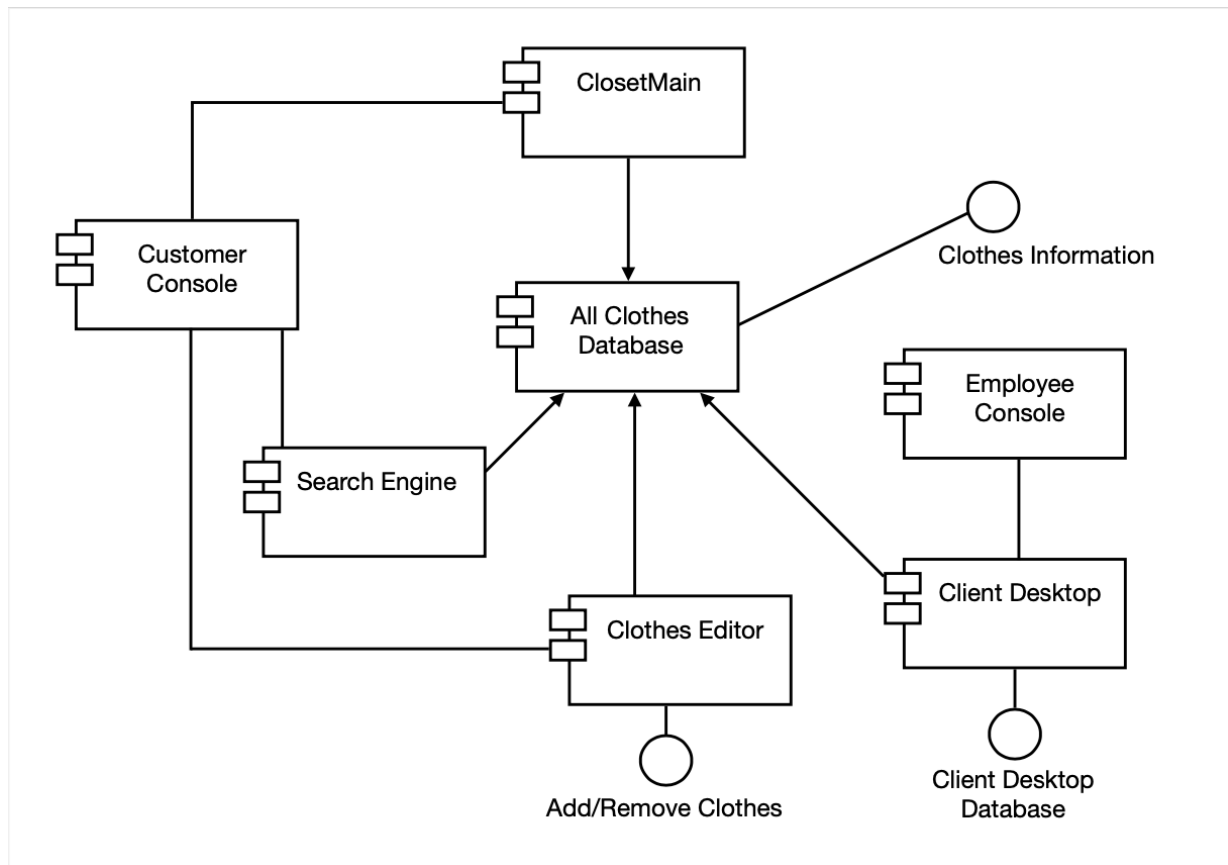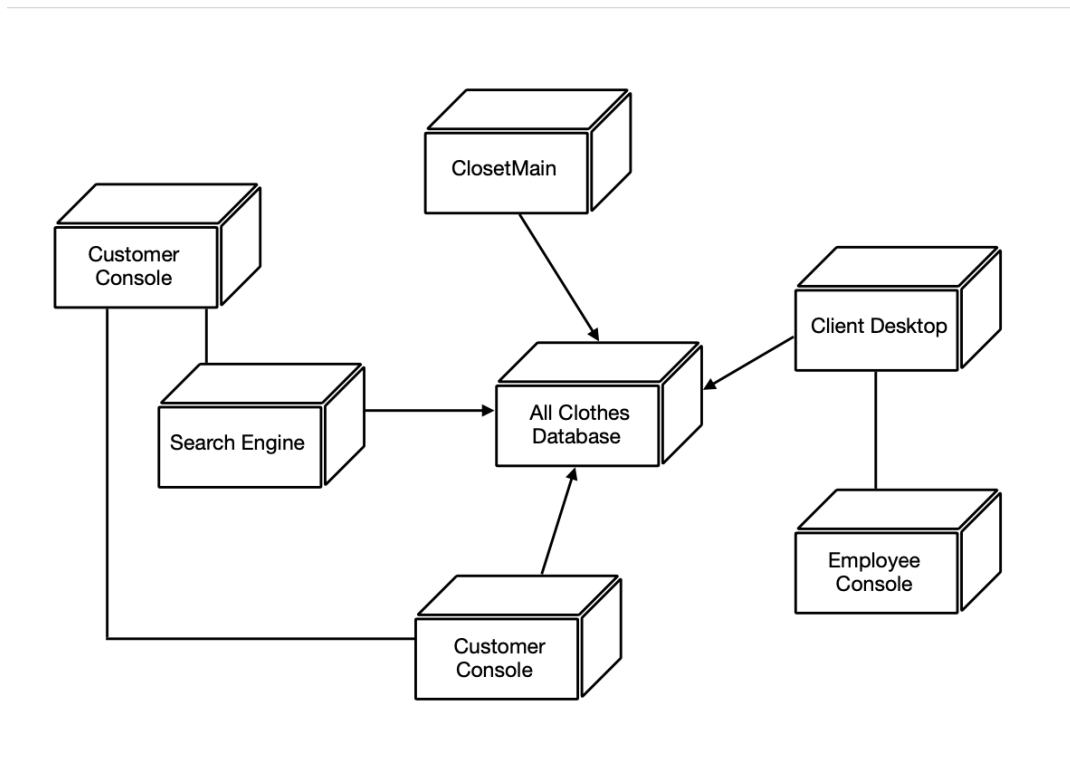
ACTIVITY DIAGRAM:

PACKAGE DIAGRAM:

COMPONENT DIAGRAM:

DEPLOYMENT DIAGRAM:

CODE/ OUTPUT SCREENSHOTS

```cpp
#include <iostream>
#include <fstream>
#include <string.h>
#include <conio.h>

using namespace std;

ofstream fout;
ifstream fin;
fstream file;

class clothesinfo
{
        private:
            int q;
                long long price;
            char size[50];
                char name[50],colour[50];
        public:
                void add();
            void viewallclothes();
            void find(char *);
            void cut(char *);
            void update(char *);

}cloth;

void clothesinfo::add()
{
        cout<<"                 Enter the details of the clothing you want to add:\n\n";
        cout<<"                Name: ";
        cin>>name;
        cout<<"\n                 Size(XS/S/M/L/XL/XXL): ";
        cin>>size;
        cout<<"\n                Colour: ";
        cin>>colour;
        cout<<"\n                Quantity: ";
        cin>>q;
        cout<<"\n                Price(in rupees): ";
        cin>>price;
        fout.write((char*)this,sizeof(*this));
        cout<<"\n                Clothing Added Successfully!";
        fout.close();
```

```
}

void clothesinfo::viewallclothes()
{
        fin.read((char*)&cloth,sizeof(cloth));
        while(!fin.eof())
        {

                cout<<"\n    "<<name;
                int k=strlen(name);
                int n=k-5;
            for (int i=0;i<22-n;i++)
            {
                cout<<" ";
            }
                cout<<size;
                k=strlen(size);
            n=k-5;
                for (int i=0;i<18-n;i++)
            {
                cout<<" ";
            }
                cout<<colour;
                k=strlen(colour);
            n=k-5;
                for (int i=0;i<21-n;i++)
            {
                cout<<" ";
            }
                cout<<q;
                int j=0;
                while(q>0)
                {
                        int r=q%10;
                        j++;
                        q=q/10;
                        }
                        if(j>3)
            {    n=j-5;      }
            else
            {    n=5-j;     }
                for (int i=0;i<27-n;i++)
            {
                cout<<" ";
            }
                cout<<price;
```

```
                    fin.read((char*)&cloth,sizeof(cloth));
                }
        fin.close();
}


void clothesinfo::find(char *t)
{
        cout<<"\n\n          Details of the clothing that you searched for:\n\n";
    int counter=0;
    fin.read((char*)this,sizeof(*this));
        while(!fin.eof())
        {
                if(!strcmp(t,name))
            {
            counter++;
            cout<<"          Name:"<<name<<"              Size:"<<size<<"
Colour:";
                                  cout<<colour<<"          Quantity:"<<q<<"
Price(in rupees):"<<price<<endl;
                        }
            fin.read((char*)this,sizeof(*this));
            }
            if(counter==0)
            {
            cout<<"          Record not found!";
                }
        fin.close();
}


void clothesinfo::cut(char *t)
{
        int counter=0;
        fout.open("NEWCLOTH.dat",ios::out);
    fin.read((char*)this,sizeof(*this));
        while(!fin.eof())
        {
                if(strcmp(t,name))
            {
            fout.write((char*)this,sizeof(*this));
                    }
                    else
                    {
                            counter++;
                    }
            fin.read((char*)this,sizeof(*this));
            }
            if(counter==0)
```

```cpp
                {
                        cout<<"\n        Record not found!";
                }
                else
                    cout<<"\n        Clothing Successfully Removed!";
        fin.close();
        fout.close();
        remove("CLOTH.dat");
        rename("NEWCLOTH.dat","CLOTH.dat");
}


void clothesinfo::update(char *t)
{
        cout<<"       Change the details of clothing:\n\n";
        int counter=0;
    file.read((char*)this,sizeof(*this));
        while(!file.eof())
        {
                if(!strcmp(t,name))
            {
                counter++;
                cout<<"        Name:";
                cin>>name;
                cout<<"        Size(XS/S/M/L/XL/XXL):";
                        cin>>size;
                        cout<<"       Colour:";
                        cin>>colour;
                        cout<<"       Quantity:";
                        cin>>q;
                        cout<<"       Price:";
                        cin>>price;
                file.seekp(file.tellp()-sizeof(*this));
                file.write((char*)this,sizeof(*this));
                        }
            file.read((char*)this,sizeof(*this));
        }
        if(counter==0)
        {
            cout<<"       Record not found!";
        }
        else
            cout<<"\n        Clothing Successfully Updated!";
        file.close();
}


int main()
{
```

```
main:
        system("cls");
        cout<<"\n                WELCOME TO CLOTHING MANAGEMENT SYSTEM\n";
        cout<<"                =================================\n";
        cout<<"                    By-Saket, Vasan and Archith\n";
        cout<<"\n\n\n";
        cout<<"            1.View All Clothes\n\n";
        cout<<"            2.Add Clothing\n\n";
        cout<<"            3.Edit Clothing\n\n";
        cout<<"            4.Remove Clothing\n\n";
        cout<<"            5.Find Clothing\n\n";
        cout<<"            6.Exit\n\n";
        cout<<"            Please Enter Required Option: ";
        int c;
        cin>>c;
        switch(c)
        {
                case 1:
                        system("cls");
                        cout<<"\n                ALL CLOTHES\n";
                        cout<<"                ===========";
                        cout<<"\n\n\n\n";
                        fin.open("CLOTH.dat",ios::in);
                        if(!fin)
        {
            cout<<"\n\nFile Not Found!!!";
        }
        else
        {
                cout<<"   Name";
                cout<<"                 Size";
                cout<<"                 Colour";
                cout<<"              Quantity";
                cout<<"            Price(in rupees)\n";

cout<<"----------------------------------------------------";

cout<<"-----------------------------------------------------";

                cloth.viewallclothes();
                    }
                getch();
                goto main;
                break;
add:
                case 2:
                        system("cls");
```

```
                        char m;
                        cout<<"\n                    ADD CLOTHING\n";
              cout<<"                           ============";
                        cout<<"\n\n\n\n";
                 fout.open("CLOTH.dat",ios::app);
                 cloth.add();
                 getch();
                 cout<<"          Do you want to add more clothing?(y/n)";
                 cin>>m;
                 if((m=='Y')||(m=='y'))
                 {
                      goto add;
                      }
                      goto main;
                      break;
edit:
            case 3:
                    char b[50],z;
                    system("cls");
                    cout<<"\n                    EDIT CLOTHING\n";
                    cout<<"                         ============";
                    cout<<"\n\n\n\n";
                    cout<<"          Name of the clothing you want to edit:";
                    cin>>b;
                    cout<<"\n\n";
                    file.open("CLOTH.dat",ios::in|ios::out|ios::ate);
                    file.seekg(0);
                    if(!file)
        {
        cout<<"\n\nFile Not Found!!!";
        goto main;
        }
        else
        {
        cloth.update(b);
                }
                getch();
        cout<<"          Do you want to delete more clothing?(y/n)";
        cin>>z;
        if((z=='Y')||(z=='y'))
        {
             goto edit;
             }
             goto main;
             break;


remove:
```

```cpp
                    case 4:
                             char name[50],l;
                             system("cls");
                             cout<<"\n                    REMOVE CLOTHING\n";
                             cout<<"                       ===============";
                             cout<<"\n\n\n\n";
                             cout<<"        Name of the clothing you want to remove:";
                             cin>>name;
                             fin.open("CLOTH.dat");
                             if(!fin)
        {
            cout<<"\n\nFile Not Found!!!";
            goto main;
        }
        else
        {
            cloth.cut(namme);
                     }
                     getch();
                     cout<<"          Do you want to remove more clothing?(y/n)";
                 cin>>l;
                 if((l=='Y')||(l=='y'))
                 {
                     goto remove;
                     }
                     goto main;
                     break;
find:
         case 5:
                     char name[50],r;
                     system("cls");
                     cout<<"\n                    FIND CLOTHING\n";
                     cout<<"                        ============";
                     cout<<"\n\n\n\n";
                     cout<<"        Name of the clothing you want to find:";
                     cin>>namee;
                     fin.open("CLOTH.dat");
                     if(!fin)
        {
            cout<<"\n\nFile Not Found!!!";
            goto main;
        }
        else
        {
            cloth.find(namee);
                     }
                     getch();
```

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```cpp
                        cout<<"\n        Do you want to find more clothing?(y/n)";
                cin>>r;
                if((r=='Y')||(r=='y'))
                {
                        goto find;
                }
                goto main;
                break;
exit:
            case 6:
                    system("cls");
        cout<<"\n\n\n            Are You Sure, You Want To EXIT (y/n)?";
        char yn;
        cin>>yn;
        if((yn=='Y')||(yn=='y'))
        {
            system("cls");
            cout<<"\n\n\n\n\n\n\n\n                    ";
    cout<<"***************************** THANKS *****************************";
            getch();
            exit(0);
        }
        else if((yn=='N')||(yn=='n'))
            goto main;
        else
        {
            cout<<"Please Enter Correctly,try again(y/n)";
            goto exit;
        }

            default:
                    cout<<"\n\n            Wrong Choice....Please Retry!!!";
                    getch();
                    goto main;
        }
```

```
            WELCOME TO CLOTHING MANAGEMENT SYSTEM
            =====================================
                   By-Saket, Vasan and Archith



            1.View All Clothes

            2.Add Clothing

            3.Edit Clothing

            4.Remove Clothing

            5.Find Clothing

            6.Exit

            Please Enter Required Option:
```

```
                            ADD CLOTHING
                            ============



        Enter the details of the clothing you want to add:

        Name: JEANS

        Size(XS/S/M/L/XL/XXL): XL

        Colour: Black

        Quantity: 5

        Price(in rupees): 300

        Clothing Added Successfully!        Do you want to add more clothing?(y/n)n
```

```
                            ALL CLOTHES
                            ===========


Name              Size          Colour          Quantity          Price(in rupees)
--------------------------------------------------------------------------------------
JEANS             XL            Black           5                 300
T-SHIRT           L             Yellow          10                500
```

```
                         EDIT CLOTHING
                         =============


     Name of the clothing you want to edit:JEANS


     Change the details of clothing:

     Name:JEANS
     Size(XS/S/M/L/XL/XXL):XL
     Colour:Black
     Quantity:25
     Price:150
```

```
                         FIND CLOTHING
                         ============


     Name of the clothing you want to find:JEANS


     Details of the clothing that you searched for:

     Name:JEANS          Size:XL          Colour:Black          Quantity:25          Price(in rupees):150

     Do you want to find more clothing?(y/n)n
```

```
                         REMOVE CLOTHING
                         ===============


      Name of the clothing you want to remove:T-SHIRT

      Clothing Successfuly Removed!          Do you want to remove more clothing?(y/n)
```

CONCLUSION AND RESULTS

The Problem statement is satisfied, the code runs well and gives outputs as expected. The project is designed to help a shopkeeper of a clothing shop to manage their work with ease and to have a proper record of all the clothing items present at their place. This project can be used at a smaller scale like if a person wants to view the details of the clothes that are present in his wardrobe.

<u>REFERENCES</u>

We have taken help from the internet for making this Clothing Management System. This includes a lot of major concepts of OOPS. Our project was made with the help of information from the following:

1. https://lucid.app/documents#/documents?folder_id=recent
2. https://www.geeksforgeeks.org
3. https://www.youtube.com
4. https://github.com/
5. https://www.planttext.com/