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POWAI

A Project Report

On

Program for an endangered animal Population

Management System

For

AISSCE 2015-16 Examination

As a part of the **Computer Science (083)**

Submitted by

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Aim and Objective

To create a dynamic endangered animal population database management system.

Introduction

Through this project we intend to help people in the pursuit of animal conservation and to educate common people about endangered species.

The information is controlled by administrators and can be viewed by anyone.

Administrators have the power to add, modify, delete and view the information. They also have the power to add new administrators.

The administrators get the percentage decrease or increase in population of endangered animals on modifying the population.

However, viewers only have the ability to view existing data.

Documentation

1) Uses of the header files

clrscr() and getch() are defined in conio.h

string.h has been used due to useage of strcpy and cin.getline

fstream.h is used for writing and reading of text file

Remove and rename defined in stdio.h

2) Templates

1. Class user

Template for name and email address of any user-viewer or admin

2. Class viewer

Inherits from user

Template for viewer code

3. Class admin

Inherits from user

Hierarchical mode of inheritance is implemented .

Template for admin code

4. Class animal

Data

Template for animal

Long int animal_index for giving unique identity to animal

String animal_info for short description

String animal_name

String locations

Integer population

Functions

Copy Constructor animal()

Display_name () ,Display_info()

Functions related to post viewer login

animal_list_display() - to display all animals present in animal_list.dat

Retrieve_animal() – To copy the data of animal having animal index same as that entered by user.

Post_viewer_login() – To implement viewer powers

Functions related to post admin login

Modify_animal() – Lets us modify specific field of any animal

Per_change() – lets us see the percentage change in population as compared to old population, called in modify_animal() in the case when animal population is to be modified.

Add_animal() – Lets us add an animal

Delete_animal() – Lets us delete an animal

Admin_add() – Allows existing admin or first user of program to add new permanent admins

Post_admin_login() - – To implement admin powers

Functions related to menu

Entry_menu() – Gives the user option to either proceed as viewer or admin. In case of viewer it further gives an option to either login or signup

viewer_login() – Completes user login on the basis of pre-existing viewer_code.

viewer_signup() – Creates new viewer and generates viewer_code

admin_login() - calls post_admin _login() if user enters a valid admin_code

Key points

a) You cannot equate two strings or two objects.

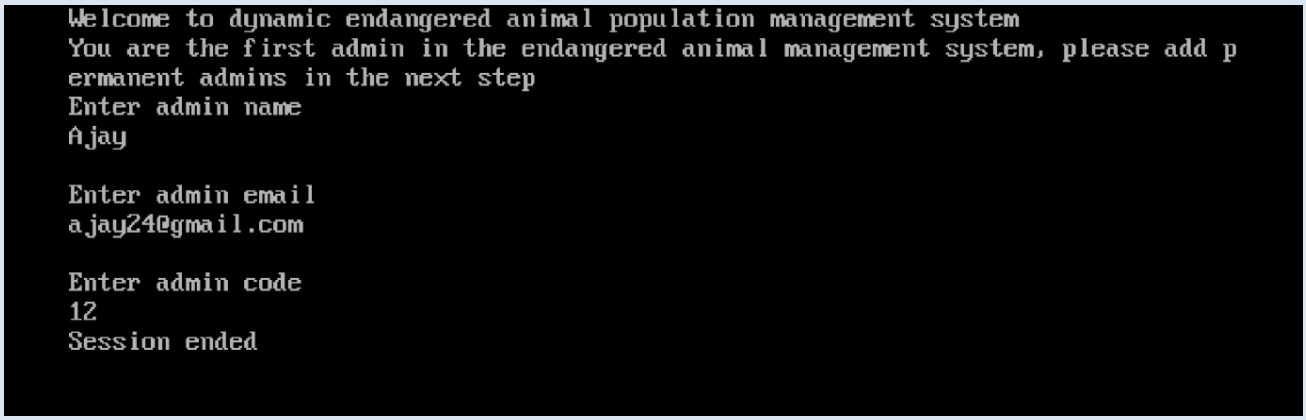
lvalue r value concept.

b) rename( ) returns 0 if deletion is successful

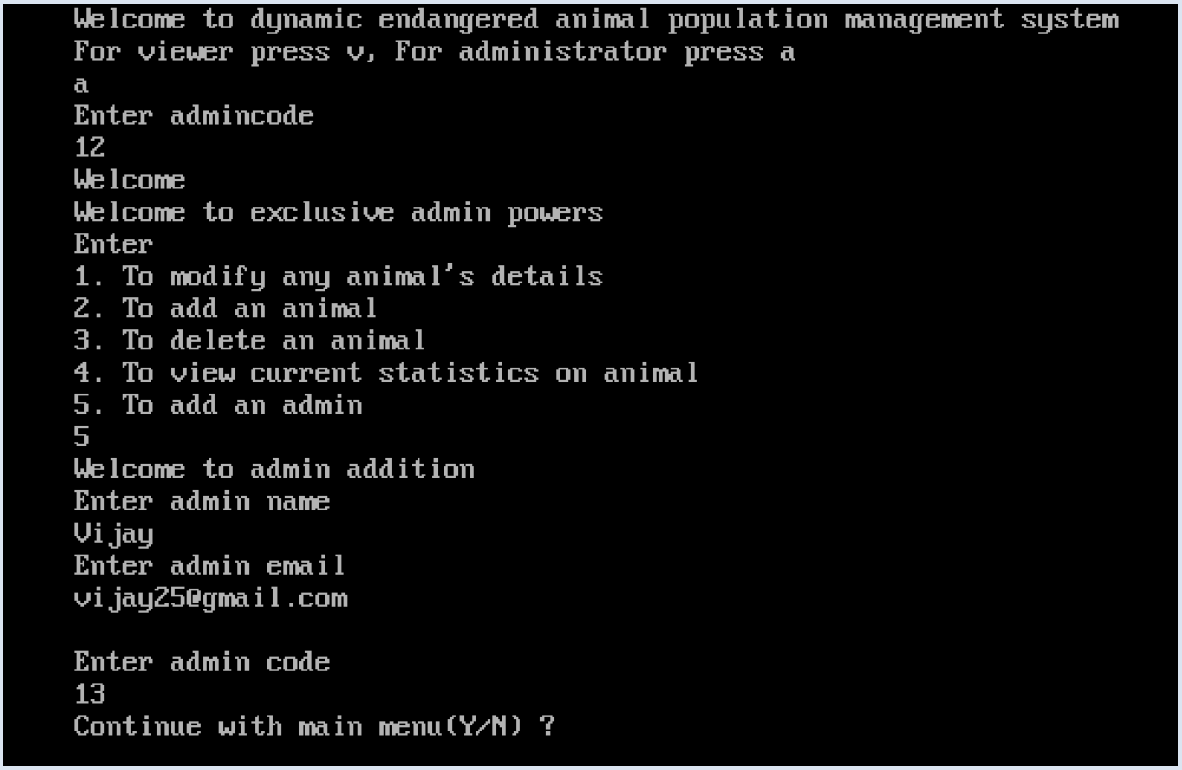
c) cin.ignore is used to implement cin.getline correctly.

Sample Output

1. Temporary admin created.



2. Adding additional admin



3. Adding animal

```
Enter admin code
13
Continue with main menu(Y/N) ?
Y

Enter
1. To modify any animal's details
2. To add an animal
3. To delete an animal
4. To view current statistics on animal
5. To add an admin
2
Welcome to Addition
Enter animal name
Tiger
Enter animal index
100
Enter locations
Jim Corbet
Enter total population
1478
Enter animal info
Tiger is a majestic creature
Continue with main menu(Y/N) ?
_
```

4. Viewing information

```
3. To delete an animal
4. To view current statistics on animal
5. To add an admin
4
Congrats you can now view information of your choice
Current list is
Index 100
Name Tiger

Index 101
Name Lion

Enter animal index of your choice
100
Animal found
Index 100
Name Tiger

Locations at which present Jim Corbet
Info about the animal
Tiger is a majestic creature
Total population 1478

Continue with main menu(Y/N) ?
_
```

```
3. To delete an animal
4. To view current statistics on animal
5. To add an admin
1
Welcome to modification
Current list is
Index 100
Name Tiger

Index 101
Name Lion

Enter the index of the animal you want to modify
100
Enter
 1. To modify animal info
 2. To modify locations
 3. To modify population
 3
Welcome to population modification
Enter new population
1352
Percent change in animal's population is -8.525034
Continue with main menu(Y/N) ?
_
```

6. Deleting animal

```
1352
Percent change in animal's population is -8.525034
Continue with main menu(Y/N) ?
Y

Enter
1. To modify any animal's details
2. To add an animal
3. To delete an animal
4. To view current statistics on animal
5. To add an admin
3
Welcome to Deletion
Current list is
Index 100
Name Tiger

Index 101
Name Lion

Enter index of animal to be deleted
100
 Deletion successful
Continue with main menu(Y/N) ?
```