* Object Oriented Programming (OOP) - Practical Number - 4 (Group - A)

Name :- Kaustubh Shrikant Kabra.
Class :- Second Year Engineering
Div :- A Roll Number :-
Batch :-
Department :- Computer Department
College :- AISSMS's IOIT.

Title :-
Demonstrate reusability of code thru Inheritance and use of exception handling.

Objective :-
1) To learn and understand code reusability and demonstrate it using Inheritance concepts.
2) To learn, understand and demonstrate exception handling in object oriented environment.

Problem Statement :-
Write a program that instantiates the book and type classes, allows user to enter data and display the data members. If an exception is caught, replace all the data member values with zero value.

Outcomes :-
1) Students will be able to learn and understand inheritance and exception handling.
2) Students will be able to demonstrate inheritance and exception handling.

Hardware Requirement :-

Any CPU with Pentium Processor or similar, 256 MB RAM or more, 1GB Hard Disk or more.

Software Requirement :-

64 bit Linux / Windows Operating System, G++ compiler

Theory :-

Inheritances -

Inheritance is basically done by creating new classes, reusing the properties of the existing ones. The mechanism of deriving a new class from an old one is called inheritance.

Exception Handling -

An exception occurs when an unexpected error or unpredictable behaviors happened on your program not caused by the operating system itself.

Algorithm :-

1) Start
2) Create a base class named media with data members.
3) Derive 2 classes named book and cassette from base class.
4) Add page count and playing time as additional data members to inherited classes.
5) Use getdata and pushdata to take in data and run user and display entered data respectively.
6) Allows user to select media whether he wants to select books as media type or the other with as switch statement.

Date :
Page :

7) Use try catch mechanism to handle exceptions.

Test case:-

1) Add books
2) Add cassettes
3) Display available books
4) Display available cassettes.

Enter your choice:
1

Enter number of books
1.
Enter Title of book: KK
Enter number of pages in book: 999
Enter Price of the book: 500.

Do you want to continue? (Y/N)
Y
Enter your choice:
2
Enter details of cassette 1.
Enter Title of cassettes: KK
Enter the running time of cassette in minutes: 29.
Enter price of the cassette: 10.

Do you want to continue? (Y/N)
Y

CLASSMATE
Date :
Page :

Enter your choice:
3
Details of book 1:-
:
:
Do you want to continue? (Y/N)
Y
Enter your choice:
4
Details of cassette 1:-
:
:
Do you want to continue? (Y/N)
N
Thanks You

Conclusion:-

Here, we learned to use and demonstrate concept of inheri-tance and exception handling.