**COMPUTER SCIENCE PROJECT**

**RT OFFICE MANAGEMENT SYSTEM**

**USING C++**



**INTRODUCTION**

The **Regional Transport Office** or **Regional Transport Authority** (**RTO/RTA**) is the organisation of the Indian government responsible for maintaining a database of drivers and a database of vehicles for various states of India. The RTO issues driving licenses, organises collection of vehicle excise duty (also known as *road tax* and *road fund license*) and sells personalized registrations.

It is almost desirable for government to computerize the RT offices such that more efficient implementation of vehicle registration, tax deduction can be done.

With the OOP features of c++, this project tries to accomplish the computerization of RTOs.

**ACKNOWLEDGEMENT**

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Our **computer science teacher** without whose constructive guidance this project would not have been a success. His valuable advice and suggestions for the corrections, modifications and improvement did enhance the perfection in performing my job well. I am obliged to **Mrs. Anu George our principal** for providing the best of facilities and environment to bring out our innovation and spirit of inquiry through this venture.

**C++ AND ITS OOP FEATURES**

**CLASSES AND OBJECTS**

The classes are the most important feature of C++ that leads to Object Oriented programming..

Classes implement the oop concept of data abstraction , data encapsulation, and data hiding .

Class is a user defined data type, which holds its own data members and member functions, which can be accessed and used by creating instance of that class. The variables inside class definition are called as data members and the functions are called member functions.

**INHERITANCE**

Inheritance in Object Oriented Programming can be described as a process of creating new classes from existing classes.

New classes inherit some of the properties and behavior of the existing classes. An existing class that is "parent" of a new class is called a **base class**. New class that inherits properties of the base class is called a **derived class**.

Inheritance is a technique of code reuse. It also provides possibility to extend existing classes by creating derived classes.

**DATA FILE HANDLING**

**File Handling** concept in C++ language is used for store a data permanently in computer. Using file handling we can store our data in Secondary memory (Hard disk).Various Streams would facilitate

File handling in c++. They are ifstream for reading,ofstream for writing,fstream for both reading and writing.

**SYSTEM REQUIREMENTS**

**MINIMUM:**

* **INTEL DUAL CORE PROCESSOR**
* **256 MB RAM**
* **14” MONITOR**
* **KEYBOARD US LAYOUT**
* **MOUSE**

**DATA DICTIONARY**

**HEADER FILES INCLUDED**

1. **Iostream.h**
2. **Conio.h**
3. **Fstream.h**
4. **Stdio.h**
5. **String.h**
6. **Process.h**

**CLASSES INCLUDED**

1. **PERSON-BASE CLASS**
2. **VEHICLE-BASE CLASS**
3. **LICENSE-DERIVED CLASS OF PERSON ( SINGLE INHERITANCE)**
4. **REG-DERIVED CLASS OF VEHICLE (SINGLE INHERITANCE)**

**FUNCTIONS INCLUDED**

**Person::getdata() - function to get application no, name, age , address etc. of license applicant**

**Person::showdata() – function to display application no, name, age, address etc. of license applicant**

**License::showlicense() – function to invoke person::showdata() and to display license no of the person.**

**Vehicle::getvehicle() - function to get vehicle name, owner name, vehicle make, engine no, chassis no etc.**

**Vehicle::showvehicle() - function to show vehicle name, owner name, vehicle make, engine no, chassis no etc.**

**Reg::dispreg() – function to invoke vehicle::showvehicle() and to display registration no of the person.**

**FILES INCLUDED**

**License.txt - includes details of persons applied for license.**

**Licenseissued.txt- includes details of persons whose license is issued by the RT Officer.**

**Reg.txt- includes details of persons applied for vehicle registration.**

**Regissued.txt- includes details of persons whose vehicle registration is issued by the RT Officer.**

**BIBLIOGRAPHY**

* **CLASS 12 COMPUTER SCIENCE TEXT BOOK BY SUMITA ARORA**