ASSIGNMENT 3

TOPIC : File Handling

TYPE 3 Question :Function write type questions Based on binary files

Q1. Given a binary file "BUS.DAT", containing records of the following class bus type.

```
class bus
{ int bus_no;
char desc[40];
int distance; //in km
public:
void read( )
{ cin>>bus_no; gets(desc) ; cin>>distance; }
void display( )
{ cout<<bus_no; puts(desc); cout<<distance; }
int retdist( )
{ return distance; }
};
```

Write a function in C++ that would read the contents of file "BUS.DAT" and display the details of those buses which travels the distance more than 100 km.

Q2. Given a binary file Sports.dat, containing records of the following structure type:

```
Struct Sports
{
Char Event[20];
Char Participant[10][30];
};
```

Write a function in C++ that would read contents from the file Sports .dat and creates a file named Athletic.dat copying only those records from Sports.dat where the event name is "Athletics".

Q3. Given a binary file TELEPHON.DAT, containing records of the following class Directory :

```
class Directory
{
char Name [20] ;
char Address [30] ;
char AreaCode[5] ;
char Phone_No[15] ;
public :
void Register ( ) ;
void Show ( ) ;
int CheckCode (char AC [ ] )
{
return strcmp ( AreaCode , AC ) ;
}
};
```

Write a function COPYABC ( ) in C++ , that would copy all those records having AreaCode as "123" from TELEPHON.DAT to TELEBACK.DAT.

Q4. Write a function in C++ to display object from the binary file "PRODUCT.Dat" whose product price is more than Rs 200. Assuming that binary file is containing the objects of the following class:

```
class PRODUCT
{
int PRODUCT_no;
char PRODUCT_name[20];
float PRODUCT_price;
public:
void enter( )
{
cin>> PRODUCT_no ; gets(PRODUCT_name) ;
cin >> PRODUCT_price;
}
void display()
{
cout<< PRODUCT_no ; cout<<PRODUCT_name ;cout<< PRODUCT_price;
}
int ret_Price( )
{
return PRODUCT_price;
}
};
```

Q5. Given the binary file CAR.Dat, containing records of the following class CAR type:

```
class CAR
{
int C_No;
char C_Name[20];
float Milage;
public:
void enter( )
{
cin>> C_No ; gets(C_Name) ; cin >> Milage;
}
void display( )
{
cout<< C_No ; cout<<C_Name ; cout<< Milage;
}
int RETURN_Milage( )
{
return Milage;
}
};
```

Write a function in C++, that would read contents from the file CAR.DAT and display the details of car with mileage between 100 to 150.

Q6. Write a function in C++ to search for a BookNo from a binary file “BOOK.DAT”, assuming the binary file is containing the objects of the following class.

```
class BOOK
{
int Bno;
char Title[20];
public:
int RBno(){return Bno;}
void Enter(){cin>>Bno;gets(Title);}
void Display(){cout<<Bno<<Title<<endl;}
};
```

Q7. Write a function in C++ to add new objects at the bottom of a binary file “STUDENT.DAT”, assuming the binary file is containing the objects of the following class.

```
class STUD
{
int Rno;
char Name[20];
public:
void Enter(){cin>>Rno;gets(Name);}
void Display(){cout<<Rno<<Name<<endl;}
};
void Addnew()
{
fstream FIL;
FIL.open(“STUDENT.DAT”,ios::binary|ios::app);
STUD S;
char CH;
do
{
S.Enter();
FIL.write((char*)&S,sizeof(S));
cout<<”More(Y/N)?”;cin>>CH;
}
while(CH!=’Y’);
 FIL.close();
}
```

Q8. Write a function in C++ to search and display the details of all flights, whose destination is “Mumbai” from “FLIGHT.DAT”. Assuming the binary file is containing objects of class.

```
class FLIGHT
{
int Fno;                //Flight Number
char From[20] ; //Flight Starting point
char To[20] ; //Flight Destination
public :
char* GetFrom( ) {return From ;}
char* GetTo( ) {return To ;}
void Enter( ) {cin >> Fno ; gets (From) ;gets(To) ; }
void Display( ) { cout << Fno<< “:” << From << “:” << To << endl ;}
};
```

Q9. Given a binary file GAME.DAT, containing records of the following structure type

```
struct Game
{
char GameName [20];
char Participant [10] [30];
};
```

Write a function in C++ that would read contents from the file GAME.DAT and creates a file named BASKET.DAT copying only those records from GAME.DAT where the game name is “Basket Ball”.

Q10. Assuming the class Computer as follows :

```
class computer
{
char chiptype[10];
int speed;
```

```
public:
void getdetails()
{
gets(chiptype);
cin>>speed;
}
void showdetails()
{
cout<<“Chip”<<chiptype<<“ Speed= “<<speed;
}
};
```

Write a function readfile( ) to read all the records present in an already existing binary file SHIP.DAT and display them on the screen, also count the number of records present in the file.