/\*

NAME JUNAID BILAL

ROLLNO FA14-BSSE-007

SECTION BATCH#3 A

ASSIGNMENT DATASTRUCTURE

SUBMITTED TO SIR ASIF SURYANI

SUBMITTED DATE 18th December 2015

ASSIGNMENT# 05

COMSATS INSTITIUTE OF INFORMATION TECHNOLOGY SAHIWAL.

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//....................................................................//

#include<iostream>

#include <ctime>

#include<Windows.h>

#include<stdlib.h>

using namespace std;

int static st=5;

int n;

int const MAX=5;

///////////////////////////////////////// class

class air\_port //class name

{

private:

int a[MAX]; //data member

int s,e;

public:

air\_port() //constructer

{

s=0;

e=0;

system(); //member function called function

}

//////////////////////////////////////////// display time and date function

void timeck()

{

Sleep(200);

cout<<" \n\n\n\t\t\tSTANDARD DATE AND TIME IS\n";

time\_t now = time(0);

char\* dt = ctime(&now);

tm \*ltm = localtime(&now);

cout << "Day: "<< ltm->tm\_mday << endl;

cout << "Month: "<< 1 + ltm->tm\_mon<< endl;

cout << "Year: "<< 1900 + ltm->tm\_year << endl;

cout << "Time: "<< ltm->tm\_hour << ":";

cout << ltm->tm\_min << ":";

cout << ltm->tm\_sec << endl;

cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

}

/////////////////////////////////////////////// system calling function

void system()

{

cout<<" \n\n\n\t\a\ WELCOME IN QUETTA INTERNATIONAL AIR PORT CONTROL SYSTEM PAKISTAN ";

cout<<"\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n";

Sleep(2000);

timeck();

present();

quetta();

}

////////////////////////////////////////////// display present status of air port

void present()

{

int n;

cout<<"\n\n\nPlane In The Yard Waiting For Takeoff Any Time:\n\n";

srand(time(0));

for(int i=1;i<=5;i++) //for loop

{

int count=1;

int cn=count++;

n=rand() % 500; //rand funtion

Sleep(2000);

enque(n,cn,n,i); //called function with parameter

}

}

/////////////////////////////////////////////////

void enque(int rn,int rcn,int fn,int ri) //calling funtion with receving parameters

{

a[++e]=rn;

cout<<ri<<"\t"<<"PK\t#"<<fn<<"\tPlane Are Available \In The Yard At This Time\n\n"<<endl;

}

////////////////////////////////////////////////////

bool is\_ful() //bool full option

{

if(e==MAX)

return true;

else

return false;

}

bool is\_empty() //bool empty option

{

if(e==0)

return true;

else

return false;

}

///////////////////////////////////////////////////

void quetta() //called funtion

{

b: // go to

srand(time(0)); //rand funtion

int nd=rand() % 10;

Sleep(2000);

if(nd==0) //if nd=0 then land

{

cout<<"\nPlane Requesting for Landing\tWAIT!\tyard space cheacking";

if(is\_ful())

{

cout<<"\nNo space At Air Port\n ";

}

else

{

cout<<"\nPermision Allowed";

a[++e];

totalstatus();

n=++st;

cout<<"\n\t\tPlane In Yard At AIRPORT is #"<<n<<endl;

}

}

else if(nd==1) //if nd=1 then take off

{

cout<<"\nRequesting For Takeoff\tPERMISION GRANDTED\tHave A Nice Journey";

a[--e];

totalstatus();

n=--st;

cout<<"\n\t\tRemaing Plane At AIRPORT Is #"<<n<<endl;

}

goto b;

}

/////////////////////////////////////////////////////////////

void totalstatus() //toatal activity of landing and take off

{

int static no=1;

int n=no++;

Sleep(20);

cout<<"\n\t\tTotal Activity At AirPort Is #"<<n<<endl;

}

///////////////////////////////////////////////////

}; //end of class

////////////////////////////////////////////////////////////////////////////

void main() //main body of program

{

system("color f9"); //color codde

air\_port a; //object calling

getchar();

getchar();

}

/\*s

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