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ENROLLMENT NO”10162129019

BATCH:12BDA

SEM:1

SUBJECT: ESFP

PROJECT: G13 (RAILWAYS TICKET RESERVATION SYSTEM

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```
#include <conio.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

typedef struct mynode {
   char name[20];
   char gen[6];
   int age;
   struct mynode* link;
} Node;

Node* start = NULL;

void details(int);
int seat(int);
int cal(int, int, int);
void bill(int, int);

char source[20], des[20], train[40];
char station[40], cla[40];
int time1, time2, a[55];

void main()
```

```
{
   int i, j, a1, a2, b, c, x = 0, d, e, r;
   char o;
   printf("Enter Number Of Passengers: ");
   fflush(stdin);
   scanf("%d", &j);

   details(j);
   printf("Enter The Source Place: ");
   fflush(stdin);
   gets(source);
   printf("Enter The Destination Place: ");
   gets(des);
   printf("\t\tThe Following Trains "
        "Are Available.....\n");
   printf("\t\t1. Rajdhani Express.."
        ".......10:00 "
        "a.m.........Sealdah Station\n");
   printf("\t\t2. Satabdi Express..."
        ".......05:00 "
        "p.m.........Howrah Station\n");
   printf("\t\t3. Humsafar Express..."
        ".......11:00 "
        "p.m.........Kolkata Chitpur"
        " Station\n");
   printf("\t\t4. Garib-Rath Express"
        ".........05:00 "
        "p.m.........Sealdah Station\n");
   printf("\t\t5. Duronto Express..."
        ".........07:00 "
        "a.m.........Santraganchi"
        "Station\n");
   scanf("%d", &i);
   do {
      switch (i) {
```

```
case 1: {
   strcpy(train,
        "Rajdhani Express");
   strcpy(station,
        "Sealdah Station");
   time1 = 10;
   time2 = 00;
   a1 = 2099;
   a2 = 1560;

   d = cal(a1, a2, j);
   printf("Total Bill Amount:"
        " %d\n",
        d);
}; break;
case 2: {
   strcpy(train,
        "Satabdi Express");
   strcpy(station,
        "Howrah Station");
   time1 = 05;
   time2 = 00;
   a1 = 1801;
   a2 = 981;

   d = cal(a1, a2, j);
   printf("Total Bill Amount:"
        "%d\n",
        d);
}; break;
case 3: {
   strcpy(train,
        "Humsafar Express");
   strcpy(station,
        "Kolkata Chitpur Express");
```

```
        time1 = 11;
        time2 = 00;
        a1 = 2199;
        a2 = 1780;

        d = cal(a1, a2, j);
        printf("Total Bill Amount: %d\n", d);
    }; break;
    case 4: {
        strcpy(train, "Garib-Rath Express");
        strcpy(station, "Sealdah Station");
        time1 = 05;
        time2 = 00;
        a1 = 1759;
        a2 = 1200;
        d = cal(a1, a2, j);
        printf("Total Bill Amount: %d\n", d);
    }; break;
    case 5: {
        strcpy(train, "Duronto Express");
        strcpy(station, "Santraganchi Station");
        time1 = 07;
        time2 = 00;
        a1 = 2205;
        a2 = 1905;

        d = cal(a1, a2, j);
        printf("Total Bill Amount: %d\n", d);
    }; break;
    default:
        printf("Enter Correct choice.....\n");
        x = 1;
        break;
    }
} while (x);
```

```
    printf("Now Book Your Seats......\n");


    seat(j);


    bill(d, j);
}


int cal(int y1, int y2, int h)
{
    int b, c, i, t, r, n;
    printf("\t\tEnter Your Choice......\n");
    printf("\t\t1. Slepper Class....\n");
    printf("\t\t2. A.C Class.......\n");
    scanf("%d", &i);
    switch (i) {
    case 1: {
        strcpy(cla, "Slepper Class");
        b = y2 * h;
        c = b + (b * 0.18);
    } break;
    case 2: {
        printf("\t\tEnter Your Choice....\n");
        printf("\t\t1. 3A Class....\n");
        printf("\t\t2. 2A Class....\n");
        printf("\t\t3. 1st Class A.C.....\n");
        scanf("%d", &n);
        switch (n) {
        case 1: {
            strcpy(cla, "3A Class");
            b = y1 * h;
            c = b + (b * 0.18);
        } break;
        case 2: {
            strcpy(cla, "2A Class");
            b = (y1 + 1000) * h;
```

```
            c = b + (b * 0.18);
        } break;
        case 3: {
            strcpy(cla, "1st Class A.C.");
            b = (y1 + 5000) * h;
            c = b + (b * 0.18);
        } break;
        default: {
            printf("\t\tEnter Right Choice.....\n");
        }
        }
    } break;
    default: {
        printf("\t\tEnter Right Choice.....\n");
    }
    }
    return c;
}

void details(int k)
{
    int i, a;
    char val[20], gen[6];
    for (i = 1; i <= k; i++) {
        printf("Enter The %dth Passenger Name: ", i);
        fflush(stdin);
        gets(val);
        printf("Enter The %dth Passenger Gender: ", i);
        fflush(stdin);
        gets(gen);
        printf("Enter The %dth Passenger Age: ", i);
        fflush(stdin);
        scanf("%d", &a);

        add_node(val, gen, a);
```

```
    }
}

void add_node(char lol[20], char der[6], int b)
{
    Node *newptr = NULL, *ptr;
    newptr = (Node*)malloc(sizeof(Node));
    strcpy(newptr->name, lol);
    strcpy(newptr->gen, der);
    newptr->age = b;
    newptr->link = NULL;
    if (start == NULL)
        start = newptr;
    else {
        ptr = start;
        while (ptr->link != NULL)
            ptr = ptr->link;
        ptr->link = newptr;
    }
}

int seat(int p)
{
    int i;
    printf("\t          -:SEAT MATRIX:-       \n");
    printf("\t(U)    (M)       (L)    (L)    "
           "    (U)\n\n");
    printf("\t01    02       03\t04       "
           "05\n\n");
    printf("\t06    07       08\t09       "
           "10\n");
    printf("\t11    12       13\t14       "
           "15\n\n");
    printf("\t16    17       18\t19       "
           "20\n");
```

```
    printf("\t21   22      23\t24      "
        "25\n\n");
    printf("\t26   27      28\t29      "
        "30\n");
    printf("\t31   32      33\t34      "
        "35\n\n");
    printf("\t36   37      38\t39      "
        "40\n");
    printf("\t41   42      43\t44      "
        "45\n\n");
    printf("\t46   47      48\t49      "
        "50\n");
    printf("\t51   52      53\t54      "
        "55\n\n");
    printf("\t56   57      58\t59      "
        "60\n");
    printf("\tEnter Seat Numbers: \n");
    for (i = 0; i < p; i++)
        scanf("%d", &a[i]);
}

void bill(int y, int j)
{
    int i;
    Node* ptr = start;
    for (i = 1; i <= j; i++) {
        printf("\t\t\%dst Passenger Name: ", i);
        puts(ptr->name);
        printf("\t\t%dst Passenger Gender: ", i);
        puts(ptr->gen);
        printf("\t\t%dst Passenger Age: %d\n\n", i,
            ptr->age);
        ptr = ptr->link;
    }
    printf("\t\tSource Place: ");
```

```
    puts(source);
    printf("\t\tDestination Place: ");
    puts(des);
    printf("\t\tThe Boarding Station: ");
    puts(station);
    printf("\t\tTrain Is: ");
    puts(train);
    printf("\t\tAllocated Class: ");
    puts(cla);
    printf("\t\tBoarding Time: %d:%d\n", time1, time2);
    printf("\t\tTotal Bill Amount: %d\n", y);
    printf("\t\tAllocated Seats Are: \n");
    for (i = 0; i < j; i++) {
        printf("\t\t%d ", a[i]);
    }
    printf("\n");
    printf("\t\t\t\tThank You.....\n");
}
```

# OUTPUT: