

LAB-10

```
#include <iostream>
using namespace std;
class Vehicle
{
protected:
string make,model;
public:
Vehicle()
{
make = "";
model = "";
}
void getDetails()
{
cout<<"\tMake: ";
```

```
getline(cin, make);
cout<<"\tModel: ";
getline(cin, model);
}

void printDetails()
{
cout<<"\tMake: "<<make<<endl;
cout<<"\tModel: "<<model<<endl;
}

};

class Car: public Vehicle
{
protected:
string price,seating_cap,fuel_type;
public:
Car()
```

```
{  
price = "";  
seating_cap = "";  
fuel_type = "";  
}  
void getDetails()  
{  
cout<<"Enter the details of the car:\n";  
Vehicle::getDetails();  
cout<<"\tPrice: ";  
getline(cin, price);  
cout<<"\tSeating Capacity: ";  
getline(cin, seating_cap);  
cout<<"\tFuel Type: ";  
getline(cin, fuel_type);  
}
```

```
void printDetails()
{
    cout<<"Car Specifications:\n";
    Vehicle::printDetails();
    cout<<"\tPrice: Rs "<<price<<endl;
    cout<<"\tSeating Capacity:
"<<seating_cap<<endl;
    cout<<"\tType of Fuel: "<<fuel_type<<"
L"<<endl;
}

};

class Bike: public Vehicle
{
protected:
    string cylinders,num_gears,fuel_tank_size;
public:
    Bike()
```

```
{  
cylinders = "";  
num_gears = "";  
fueltank_size = "";  
}  
  
void getDetails()  
{  
cout<<"Enter the details of bike:\n";  
Vehicle::getDetails();  
cout<<"\tNo:of Cylinders: ";  
getline(cin, cylinders);  
cout<<"\tNo:of Gears: ";  
getline(cin, num_gears);  
cout<<"\tSize of the Fuel Tank: ";  
getline(cin, fueltank_size);  
}
```

```
void printDetails()
{
    cout<<"Bike Specifications:\n";
    Vehicle::printDetails();
    cout<<"\tNo:of Cylinders: "<<cylinders<<endl;
    cout<<"\tNo:of Gears: "<<num_gears<<endl;
    cout<<"\tSize of the Fuel Tank:
"<<fueltank_size<<" L"<<endl;
}

};

class Audi: public Car
{
protected:
    string horse_power;
public:
    Audi()
```

```
{
horse_power = "";
}

void getDetails()
{
cout<<"Enter the details of audi:\n";
Vehicle::getDetails();
cout<<"\tHorse Power: ";
getline(cin, horse_power);
}

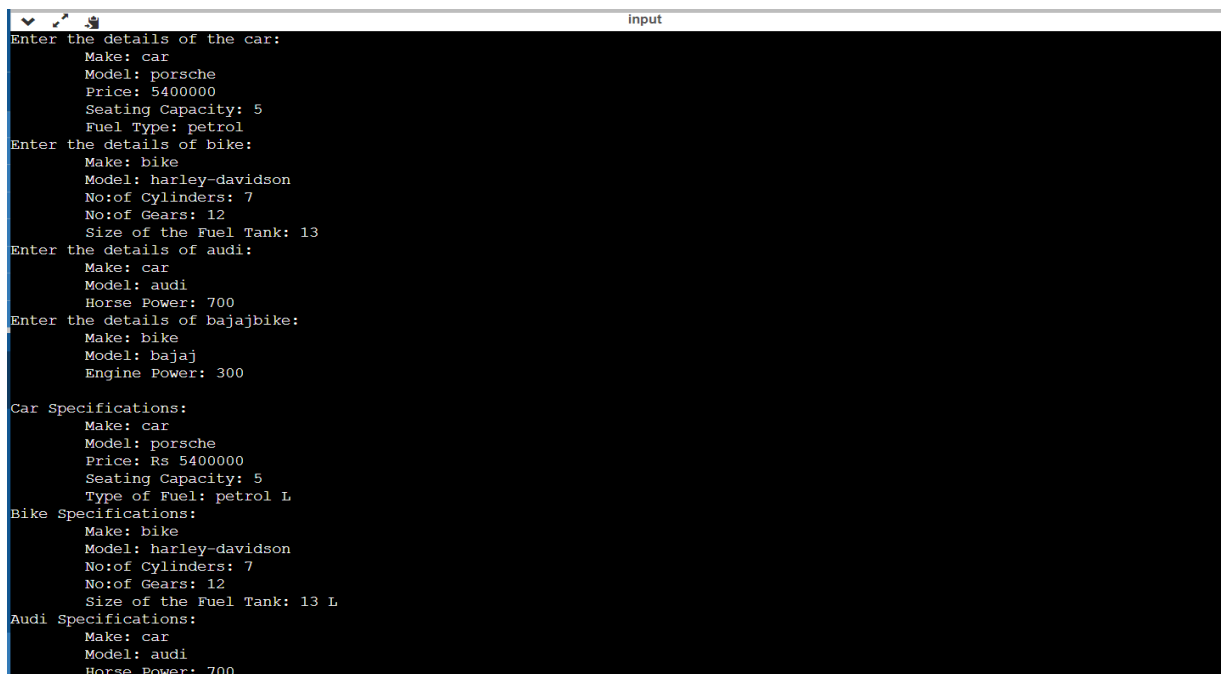
void printDetails()
{
cout<<"Audi Specifications:\n";
Vehicle::printDetails();
cout<<"\tHorse Power: "<<horse_power<<endl;
}
```

```
};  
  
class BajajBike: public Bike  
{  
protected:  
string engine_power;  
public:  
BajajBike()  
{  
engine_power = "";  
}  
void getDetails()  
{  
cout<<"Enter the details of bajajbike:\n";  
Vehicle::getDetails();  
cout<<"\tEngine Power: ";  
getline(cin, engine_power);
```



```
}  
  
void printDetails()  
{  
    cout<<"BajajBike Specifications:\n";  
    Vehicle::printDetails();  
    cout<<"\tEngine Power: "<<engine_power<<"  
    cc"<<endl;  
}  
};  
  
int main()  
{  
    Car *c1 = new Car;  
    Bike *b1 = new Bike;  
    Audi *a1 = new Audi;  
    BajajBike *bb1 = new BajajBike;  
    c1->getDetails();
```

```
b1->getDetails();  
a1->getDetails();  
bb1->getDetails();  
cout<<"\n";  
c1->printDetails();  
b1->printDetails();  
a1->printDetails();  
bb1->printDetails();  
return 0;  
}
```



```
input  
Enter the details of the car:  
  Make: car  
  Model: porsche  
  Price: 5400000  
  Seating Capacity: 5  
  Fuel Type: petrol  
Enter the details of bike:  
  Make: bike  
  Model: harley-davidson  
  No:of Cylinders: 7  
  No:of Gears: 12  
  Size of the Fuel Tank: 13  
Enter the details of audi:  
  Make: car  
  Model: audi  
  Horse Power: 700  
Enter the details of bajajbike:  
  Make: bike  
  Model: bajaj  
  Engine Power: 300  
  
Car Specifications:  
  Make: car  
  Model: porsche  
  Price: Rs 5400000  
  Seating Capacity: 5  
  Type of Fuel: petrol L  
Bike Specifications:  
  Make: bike  
  Model: harley-davidson  
  No:of Cylinders: 7  
  No:of Gears: 12  
  Size of the Fuel Tank: 13 L  
Audi Specifications:  
  Make: car  
  Model: audi  
  Horse Power: 700
```

```
input
Model: harley-davidson
No:of Cylinders: 7
No:of Gears: 12
Size of the Fuel Tank: 13
Enter the details of audi:
Make: car
Model: audi
Horse Power: 700
Enter the details of bajajbike:
Make: bike
Model: bajaj
Engine Power: 300

Car Specifications:
Make: car
Model: porsche
Price: Rs 5400000
Seating Capacity: 5
Type of Fuel: petrol L
Bike Specifications:
Make: bike
Model: harley-davidson
No:of Cylinders: 7
No:of Gears: 12
Size of the Fuel Tank: 13 L
Audi Specifications:
Make: car
Model: audi
Horse Power: 700
BajajBike Specifications:
Make: bike
Model: bajaj
Engine Power: 300 cc

...Program finished with exit code 0
Press ENTER to exit console.
```