C++ Vehicle Inheritance

Contents

Time required: 90 minutes

- Comment each line of code as shown in the tutorials and other code examples.
- Follow all directions carefully and accurately.
- Think of the directions as minimum requirements.

Pseudocode

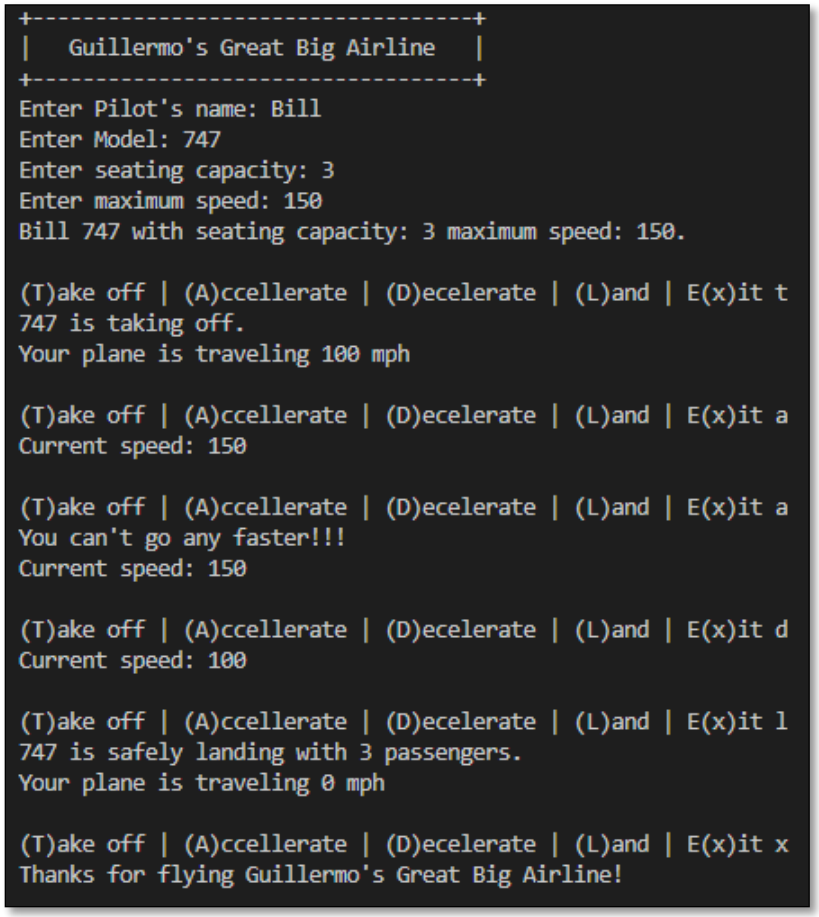
1. Write pseudocode or TODO for the exercise

Vehicle Inheritance

Create a C++ file named **vehicle.cpp**

- Create a virtual base class named **vehicle**
    - Include two data members with getters and setters
    - Include two methods that do something
- Create 2 derived classes
    - Override the base class methods
    - Add a data member
- Demonstrate the derived classes
- Have fun with the program. There will be a prize for the most creative.

Examples


+----------------------------------+
| Guillermo's Great Big Airline |
+----------------------------------+
Enter Pilot's name: Bill
Enter Model: 747
Enter seating capacity: 3
Enter maximum speed: 150
Bill 747 with seating capacity: 3 maximum speed: 150.
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it t
747 is taking off.
Your plane is traveling 100 mph
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it a
Current speed: 150
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it a
You can't go any faster!!!
Current speed: 150
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it d
Current speed: 100
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it l
747 is safely landing with 3 passengers.
Your plane is traveling 0 mph
(T)ake off | (A)ccellerate | (D)ecelerate | (L)and | E(x)it x
Thanks for flying Guillermo's Great Big Airline!

```
+---------------------------------+
|   Flying Saucer Alien Abduction   |
+---------------------------------+
Enter alien's name: Beepozoidis
Enter color: green
Enter size: small
Enter maximum speed: 30000
Beepozoidis has a green flying saucer that is small with a maximum speed of 30000.

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it t
Flying saucer is taking off.

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it a
Current speed: 50

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it a
Current speed: 100

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it d
Current speed: 50

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it b
The human has been abducted.

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it l
Flying saucer is landing.

(T)ake off | (A)ccellerate | (D)ecelerate | A(b)uct | (L)and | E(x)it x
Thank you for participating in our alien abduction.
```

Challenges

Make this program something worth showing off in your GitHub repository.

- Include a link to your GitHub repository showing a series of commits.
    - Pseudocode or TODO
    - Build and test the program one attribute and method at a time.
- Anything else you can think of to show off what you have learned.
- Mention what you added in the Blackboard submission.

Assignment Submission

1. Attach the pseudocode.
2. Attach the program files.
3. Attach screenshots showing the successful operation of the program.

4. Submit in Blackboard.