**01 Fundamentals EXAM**

Write C++ code for solving the tasks on the following pages.

Code should compile under the C++03 or the C++11 standard.

Please follow the exact instructions on uploading the solutions for each task.

**Task 5 – Car Calculation**

Write a program, use Class and Struct. Class is used for Auto, struct is used for Tank. For a given cars and given tanks the program should calculate:

Consumption of liters for all Kilometers.

Needed money.

WARNING: The user can not input negative or zero consumption ! The fuel type should be only:

“diesel”, “gasoline”, “gpl”

**Example 1**

**How many cars you want to check ?**

1

**Enter Make :** VW

**Enter Model :** Golf

**Enter FuelType :** diesel

**Enter Consumption ( l/100km ) :** 5

**Enter Fuel on Gas Station :** diesel

**Enter Price per Liter :** 2.19

**Enter traveled KM :** 200

**Make -> VW**

**Model -> Golf**

**Fuel Type -> diesel**

**Consumption 5 l/100km**

**Fuel on Gas Station -> diesel**

**Price per liter -> 2.19**

**Traveled KM -> 200**

**Consumption of liters per all Kilometers -> 10**

**Needed money -> 21.9 BGN**

**Program ended with exit code: 0**

**Example 2**

**How many cars you want to check ?**

2

**Enter Make :** Audi

**Enter Model :** A6

**Enter FuelType :** diesel

**Enter Consumption ( l/100km ) :** 7.5

**Enter Fuel on Gas Station :** diesel

**Enter Price per Liter :** 2.19

**Enter Make :** VW

**Enter Model :** Passat

**Enter FuelType :** gasoline

**Enter Consumption ( l/100km ) :** 8

**Enter Fuel on Gas Station :** gasoline

**Enter Price per Liter :** 1.94

**Enter traveled KM :** 200

**Make -> Audi**

**Model -> A6**

**Fuel Type -> diesel**

**Consumption 7.5 l/100km**

**Fuel on Gas Station -> diesel**

**Price per liter -> 2.19**

**Traveled KM -> 200**

**Consumption of liters per all Kilometers -> 15**

**Needed money -> 32.85 BGN**

**Make -> VW**

**Model -> Passat**

**Fuel Type -> gasoline**

**Consumption 8 l/100km**

**Fuel on Gas Station -> gasoline**

**Price per liter -> 1.94**

**Traveled KM -> 200**

**Consumption of liters per all Kilometers -> 16**

**Needed money -> 31.04 BGN**

**Program ended with exit code: 0**

**Example 3**

**How many cars you want to check ?**

1

**Enter Make :** Hyundai

**Enter Model :** Atos

**Enter FuelType :** gasoline

**Enter Consumption ( l/100km ) :** 7

**Enter Fuel on Gas Station :** gasoline

**Enter Price per Liter :** 1.94

**Enter traveled KM :** 110

**Make -> Hyundai**

**Model -> Atos**

**Fuel Type -> gasoline**

**Consumption 7 l/100km**

**Fuel on Gas Station -> gasoline**

**Price per liter -> 1.94**

**Traveled KM -> 110**

**Consumption of liters per all Kilometers -> 7.7**

**Needed money -> 14.938 BGN**

**Program ended with exit code: 0**