

## Αντικειμενοστραφής Προγραμματισμός II .

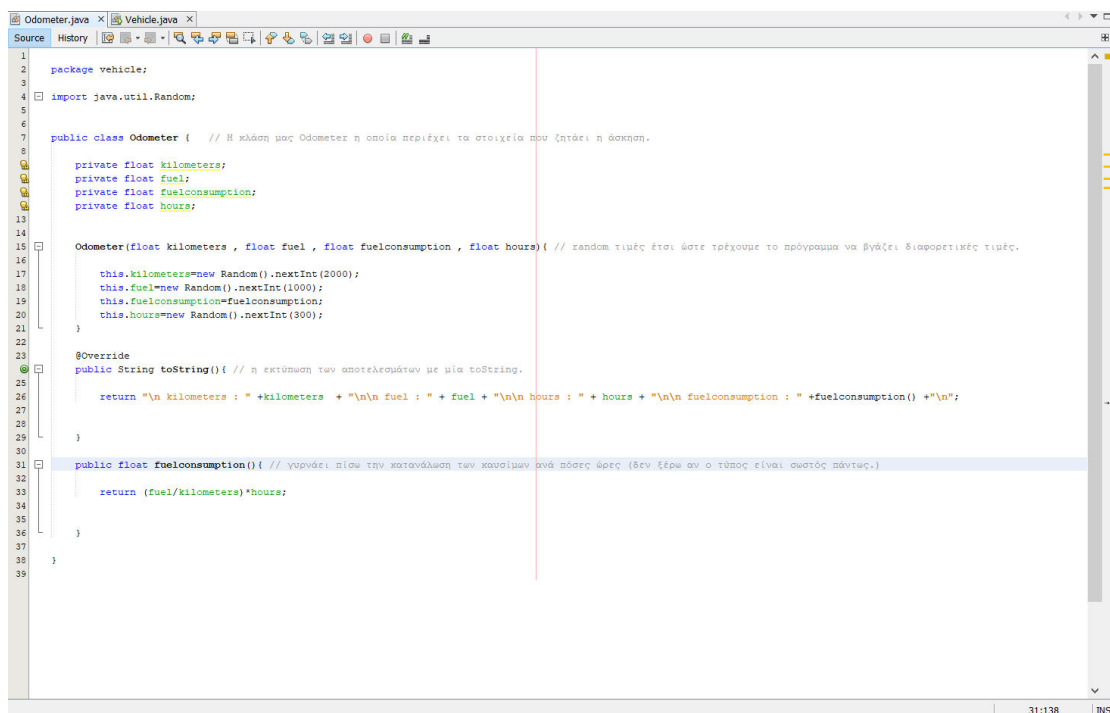
Java 1ο ατομικό φυλλάδιο εργαστηριακών Ασκήσεων.

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Πρώτη άσκηση .

### 1.1

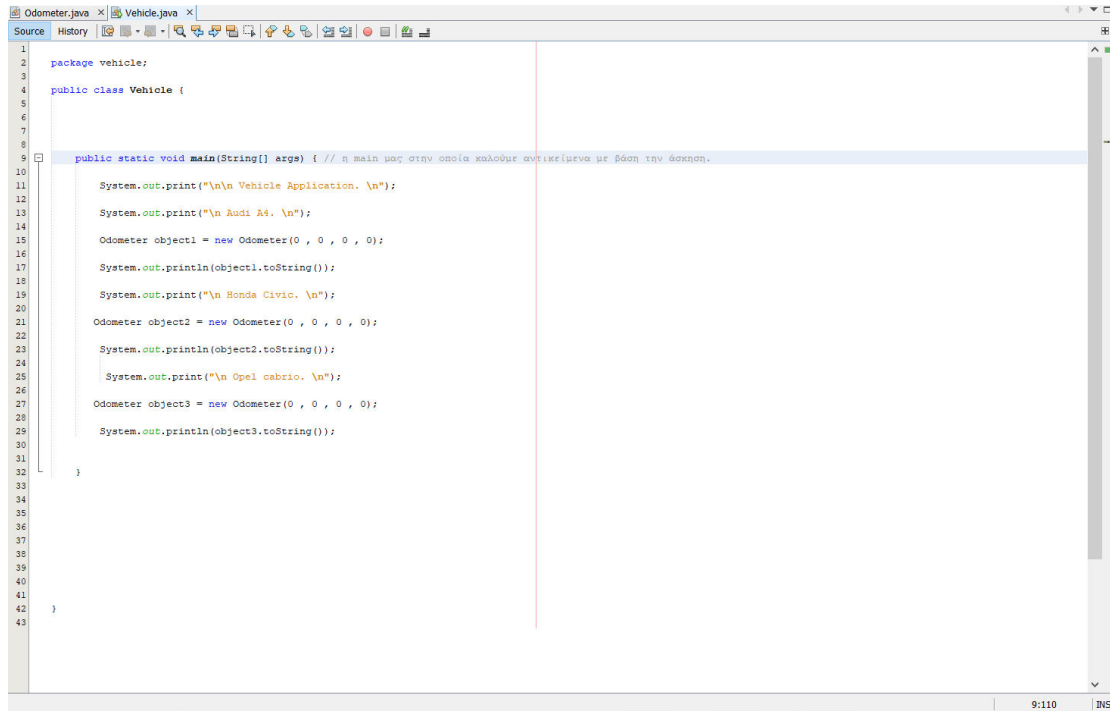
Η κλάση odometer η οποία εμπεριέχει τα στοιχεία που ζητάει η άσκηση.



```
1 package vehicle;
2
3
4 import java.util.Random;
5
6
7 public class Odometer { // Η κλάση μας Odometer η οποία περιέχει τα στοιχεία που ζητάει η άσκηση.
8
9     private float kilometers;
10    private float fuel;
11    private float fuelconsumption;
12    private float hours;
13
14
15    Odometer(float kilometers , float fuel , float fuelconsumption , float hours) { // random τιμές έτσι ώστε τρέχουμε το πρόγραμμα να βγάζει διαφορετικές τιμές.
16
17        this.kilometers=new Random().nextInt(2000);
18        this.fuel=new Random().nextInt(1000);
19        this.fuelconsumption=fuelconsumption;
20        this.hours=new Random().nextInt(300);
21    }
22
23    @Override
24    public String toString(){ // η εκτύπωση των αποτελεσμάτων με μία toString.
25
26        return "\n kilometers : " +kilometers + "\n\n fuel : " + fuel + "\n\n hours : " + hours + "\n\n fuelconsumption : " +fuelconsumption() +"\n";
27    }
28
29
30    public float fuelconsumption(){ // γινόμενο πίσω την κατανάλωση των καυσίμων ανά πόσες ώρες (δεν ξέρω αν ο τύπος είναι σωστός πάντως.)
31
32        return (fuel/kilometers)*hours;
33    }
34
35
36
37
38
39 }
```

## 1.2

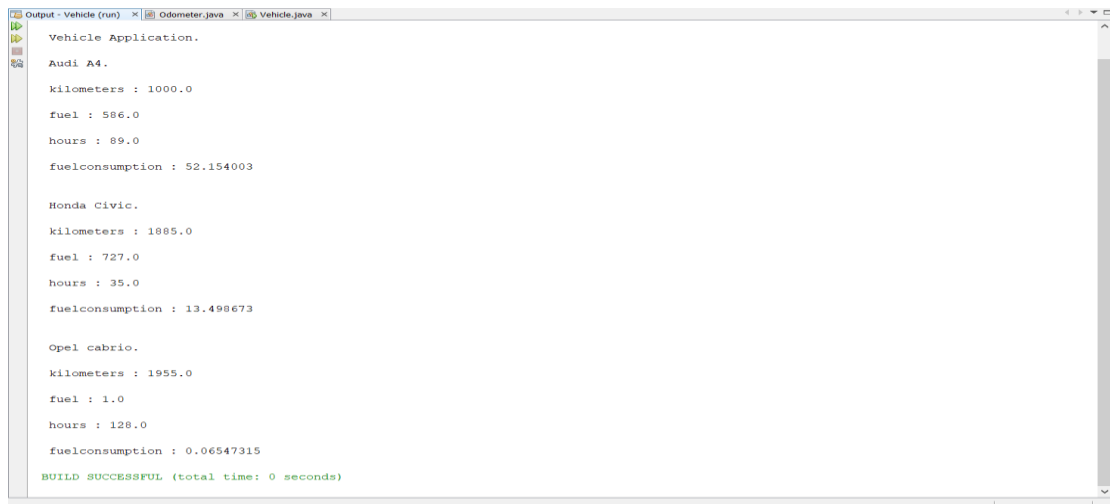
Η κλάση Vehicle η οποία εμπεριέχει τα αντικείμενα όπου καλούμε τα στοιχεία της κλάσης odometer με random τιμές κάθε φορά που τρέχουμε το πρόγραμμα.



```
1 package vehicle;
2
3 public class Vehicle {
4
5
6
7
8
9     public static void main(String[] args) { // η main μας στην οποία καλούμε αντικείμενα με βάση την άσκηση.
10
11         System.out.print("\n\n Vehicle Application. \n");
12
13         System.out.print("\n Audi A4. \n");
14
15         Odometer object1 = new Odometer(0 , 0 , 0 , 0);
16
17         System.out.println(object1.toString());
18
19         System.out.print("\n Honda Civic. \n");
20
21         Odometer object2 = new Odometer(0 , 0 , 0 , 0);
22
23         System.out.println(object2.toString());
24
25         System.out.print("\n Opel cabrio. \n");
26
27         Odometer object3 = new Odometer(0 , 0 , 0 , 0);
28
29         System.out.println(object3.toString());
30
31     }
32
33
34
35
36
37
38
39
40
41
42 }
43
```

## 1.3

Όταν τρέχουμε το πρόγραμμα.



```
Output - Vehicle (run) | Odometer.java | Vehicle.java
Vehicle Application.

Audi A4.
kilometers : 1000.0
fuel : 586.0
hours : 89.0
fuelconsumption : 52.154003

Honda Civic.
kilometers : 1885.0
fuel : 727.0
hours : 35.0
fuelconsumption : 13.499673

Opel cabrio.
kilometers : 1955.0
fuel : 1.0
hours : 128.0
fuelconsumption : 0.06547315

BUILD SUCCESSFUL (total time: 0 seconds)
```

## Δεύτερη άσκηση .

### 2.1)

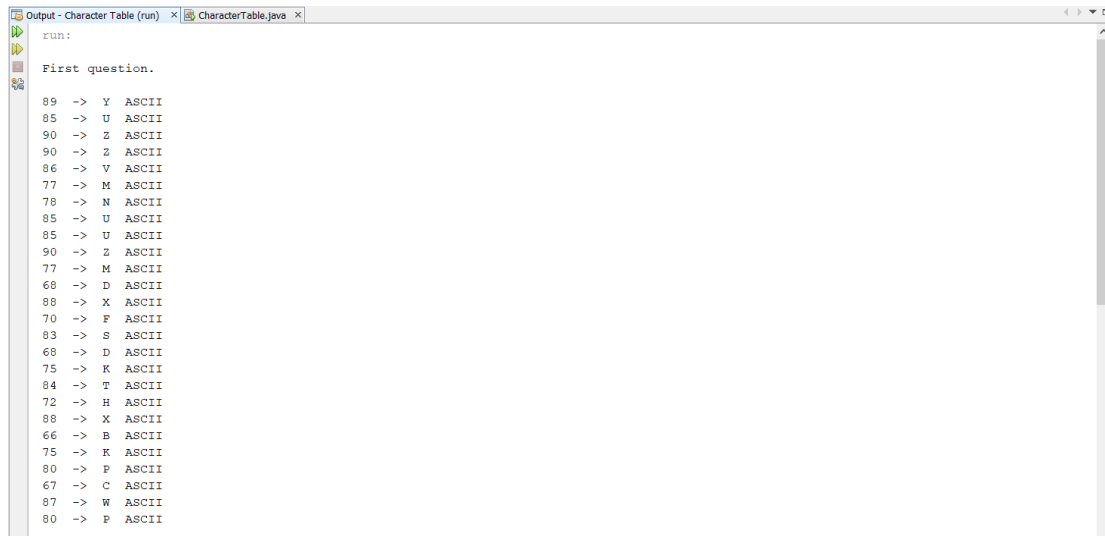
Η main η οποία καλεί όλες τις private static μεθόδους της άσκησης.

```
1 package character.table;
2
3 import java.lang.reflect.Array;
4 import java.util.ArrayList;
5 import java.util.Arrays;
6 import java.util.Random;
7
8
9
10 public class CharacterTable { // η κλάση μας
11
12     public static void main(String[] args) { // η main η οποία καλεί όλες τις private static μεθόδους της άσκησης.
13
14         char[] character = {'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X'}
15
16         // ο πίνακας μας από πάνω όπου έχει την αλφάβητα με κεφαλαία λόγω του πρώτου ερωτήματος με (65-90) ascii τιμές όπου είναι η αλφάβητος με κεφαλαία.
17
18         fillTableRandomly(character);
19         System.out.println();
20         printTableH(character);
21         System.out.println();
22         printTableV(character);
23         System.out.println();
24         swapValues(character, 24, 25);
25         System.out.println();
26         LocationChar(character, 'B');
27         System.out.println();
28         cloneTable(character);
29         System.out.println();
30         mergeTables(character, character);
31         System.out.println();
32         ConvertToString(character);
33         System.out.println();
34         ConvertToStringI(character, 0, 10);
35         System.out.println();
36         System.out.println("END ");
37     }
38 }
39 }
```

### 2.2 ) void fillTableRandomly(char [])

Γεμίζει τον πίνακα που δέχεται ως παράμετρο με τυχαίους χαρακτήρες. Θα παράγει τυχαίους ακέραιους αριθμούς στο διάστημα [65, 90] και θα τους μετατρέπει στους αντίστοιχους χαρακτήρες σύμφωνα με την κωδικοποίηση ASCII.

```
private static void fillTableRandomly(char [] character) {
    Random randomNumbers = new Random(); // random numbers.
    System.out.print("\nFirst question. \n\n");
    for(char characters : character){ // μια for για τον πίνακα μας στην main.
        int numbers = randomNumbers.nextInt((90-65)+1)+65; // random αριθμός από 65-90
        characters = (char)numbers; // μετατροπή τυχαίων αριθμών σε ascii
        System.out.print(numbers + " -> ");
        System.out.println(characters + " ASCII ");
    }
}
```



```
Output - Character Table (run) x CharacterTable.java x
RUN:
First question.
89 -> Y ASCII
85 -> U ASCII
90 -> Z ASCII
90 -> Z ASCII
86 -> V ASCII
77 -> M ASCII
78 -> N ASCII
85 -> U ASCII
85 -> U ASCII
90 -> Z ASCII
77 -> M ASCII
68 -> D ASCII
88 -> X ASCII
70 -> F ASCII
83 -> S ASCII
68 -> D ASCII
75 -> K ASCII
84 -> T ASCII
72 -> H ASCII
88 -> X ASCII
66 -> B ASCII
75 -> K ASCII
80 -> P ASCII
67 -> C ASCII
87 -> W ASCII
80 -> P ASCII
```

## 2.3 ) void printTableH(char [])

Τυπώνει όλους τους χαρακτήρες του πίνακα σε μια γραμμή.

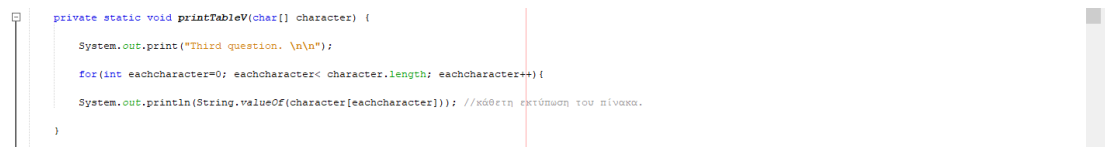


```
private static void printTableH(char[] character) {
    System.out.print("Second question. \n\n");
    System.out.println(String.valueOf(character)); // οριζόντια εκτύπωση του πίνακα.
}

Second question.
ABCDEFGHIJKLMNOPQRSTUVWXYZ
```

## 2.4 ) printTableV(char [])

Τυπώνει όλους τους χαρακτήρες του πίνακα σε μια στήλη.



```
private static void printTableV(char[] character) {
    System.out.print("Third question. \n\n");
    for(int eachcharacter=0; eachcharacter< character.length; eachcharacter++){
        System.out.println(String.valueOf(character[eachcharacter])); //κάθετη εκτύπωση του πίνακα.
    }
}
```

Third question.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
V  
W  
X  
Y  
Z

## 2.5) swapValues(char [], int, int )

Εναλλάσσει τις τιμές των κελιών του πίνακα που ορίζονται από τις 2 τελευταίες παραμέτρους.

```
private static void swapValues(char[] character , int a , int b) {  
    System.out.print("Fourth question. \n\n");  
    char charracter = character[a];  
    character[a]=character[b];  
    character[b]= charracter;  
    System.out.println(Arrays.toString(character)); // εκτυπώνει τον πίνακα κάνοντας εναλλαγή το Y με τον Z αφού έχω θέσει την 24 και 25 θέση όπου βρίσκονται τα γράμματα  
}
```

Fourth question.

[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]

## 2.6) int LocationChar(char [], char)

Επιστρέφει την πρώτη εμφάνιση του χαρακτήρα της δεύτερης παραμέτρου στον πίνακα.

```

private static int LocationChar(char[] character , char d) {

    System.out.print("Fifth question. \n\n");

    for(char characters : character){

        d = Array.getChar(character, 1);

        System.out.println(d); // εκτυπώνει το B που βρίσκεται στην θέση 1.

        break;

    }

    return d;
}

```

Fifth question.

B

## 2.7) char [] cloneTable (char [])

Δημιουργία ενός νέου πίνακα, αντιγράφου του πίνακα που δέχεται ως παράμετρο.

```

private static char[] cloneTable(char[] character) {

    System.out.print("Sixth question. \n\n");

    char[] e = character.clone(); // κλώνο τον πίνακα και τον βάζω στον πίνακα e.

    System.out.println(Arrays.toString(e) + "\n"); // εκτυπώνει τον πίνακα e (κλώνος).

    return e;

}

```

Sixth question.

[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Z, Y]

## 2.8) char [] mergeTables (char [], char [] )

Δημιουργία ενός νέου πίνακα, που προκύπτει από την συγχώνευση των 2 πινάκων που δέχεται ως παράμετρο.

```
private static char[] mergeTables(char[] character , char[] f) {
    System.out.print("Seventh question. \n\n");

    f = character.clone(); // κλωνοποιώ τον πίνακα character στον f.

    int h = character.length;
    int i = f.length;

    char[] j = new char[h + i]; // ο πίνακας j όπου εμπεριέχει τον πίνακα character και τον f μαζί το ζητούμενο της συνάρτησης.

    System.arraycopy(character, 0, j, 0, h);
    System.arraycopy(f, 0, j, h, i); // συνένωση δύο πινάκων με την arraycopy.

    System.out.println(Arrays.toString(j)); // εκτύπωση τελικού πίνακα ( δύο φορές η αλφάβητος σε έναν πίνακα).

    return j;
}

Seventh question.

[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Z, Y, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Z, Y]
```

## 2.9) String ConvertToString (char []) και String ConvertToString1 (char [], int, int)

Δημιουργία ενός αλφαριθμητικού με όλους τους χαρακτήρες του πίνακα.

Δημιουργία ενός αλφαριθμητικού με όλους τους χαρακτήρες του πίνακα από την θέση που καθορίζεται από την 1η παράμετρο έως την θέση που καθορίζεται στην 2η παράμετρο.

```
private static String ConvertToString(char[] character) {
    System.out.print("Eighth question. \n\n");

    for(char characters : character){
        String k = String.valueOf(character);

        System.out.print(k + "\n"); // ο πίνακας εκτυπώνεται σε string.
        break;
    }

    return null;
}

private static String ConvertToString1(char[] character, int k , int l) {
    System.out.print("Nineth question. \n\n");

    String n = String.valueOf(character);

    String m = "";

    m = n.substring(k,l); // χρησιμοποιώ την substring για να εκτυπώσω την αλφάβητο με παραμέτρους από το 0-10 που είναι από το Α μέχρι το J.

    System.out.println(String.valueOf(m));
}

Eighth question.

ABCDEFGHIJKLMNPOQRSTUVWXYZ

Nineth question.

ABCDEFGHIJ

END
BUILD SUCCESSFUL (total time: 0 seconds)
```

## Τρίτη άσκηση .

### 3.1)

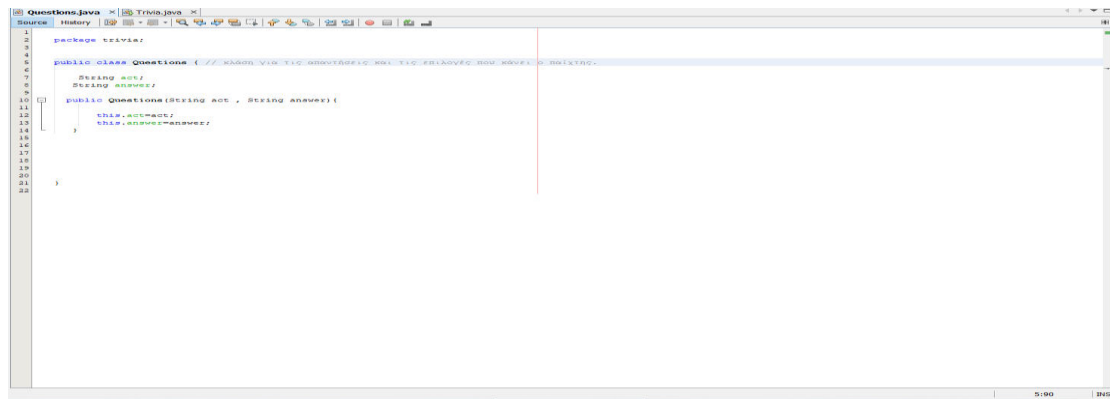
Η main κλάση μας που αποτελείται από τις ερωτήσεις του παιχνιδιού trivia και εμπεριέχει και τις σωστές απαντήσεις .Πιο κάτω βλέπουμε την συνάρτηση question μέσα στην οποία δίνουμε τις απαντήσεις μας και με βάσει αυτές κερδίζουμε λεφτά αλλιώς δεν κερδίζουμε λεφτά και βλέπουμε τις σωστές απαντήσεις σε κάθε ερώτηση που κάνουμε λάθος.

```
Questions.java x Trivia.java x
Source History
15 String question1 = "\n What color has a banana?\n\n" + "(a)yellow\n\n" + "(b)green\n\n" + "(c)blue\n\n"; // οι ερωτήσεις του παιχνιδιού.
16 String question2 = "\n What color has a gorilla?\n\n" + "(a)yellow\n\n" + "(b)green\n\n" + "(c)black\n\n";
17 String question3 = "\n What color has an elephant?\n\n" + "(a)brown\n\n" + "(b)green\n\n" + "(c)grey\n\n";
18 String question4 = "\n What color has an alien?\n\n" + "(a)black\n\n" + "(b)white\n\n" + "(c)red\n\n";
19 String question5 = "\n What color has a kangaroo?\n\n" + "(a)black\n\n" + "(b)brown\n\n" + "(c)pink\n\n";
20 String question6 = "\n What color has an orange?\n\n" + "(a)purple\n\n" + "(b)orange\n\n" + "(c)yellow\n\n";
21 String question7 = "\n What color has an apple?\n\n" + "(a)red\n\n" + "(b)brown\n\n" + "(c)orange\n\n";
22 String question8 = "\n What color has an onion?\n\n" + "(a)yellow\n\n" + "(b)brown\n\n" + "(c)purple\n\n";
23 String question9 = "\n When tsipras elected?\n\n" + "(a)2015\n\n" + "(b)2014\n\n" + "(c)2016\n\n";
24 String question10 = "\n When mitrotakis elected?\n\n" + "(a)2017\n\n" + "(b)2019\n\n" + "(c)2019\n\n";
25
26 Questions [] questions ={} //οι σωστές απαντήσεις των ερωτήσεων.
27 new Questions(question1, "a"),
28 new Questions(question2, "c"),
29 new Questions(question3, "c"),
30 new Questions(question4, "b"),
31 new Questions(question5, "b"),
32 new Questions(question6, "b"),
33 new Questions(question7, "a"),
34 new Questions(question8, "c"),
35 new Questions(question9, "a"),
36 new Questions(question10, "c")
37
38 question(questions);
39
40
41 public static void question(Questions [] questions){ // η συνάρτηση που δίνουμε την απάντηση για κάθε ερώτηση .
42
43 float money=0;
44 Scanner input= new Scanner(System.in);
45
46 for(int i=0; i<questions.length; i++){
47
48 System.out.print(questions[i].act());
49 System.out.print("\n Give an answer please : ");
50 String answer = input.nextLine();
51
52
53 if(answer.equals(questions[i].answer)){ // αν είναι σωστή η απάντηση κερδίζουμε λεφτά και μας κάνει print τα λεφτά και ότι απαντήσαμε σωστά.
54
55 money=(money + 10)^i+1;
56
57 System.out.print("\n Correct answer , Money : " + money + " .\n\n");
58
59 }
60
61 if(!answer.equals(questions[i].answer)){ // αν δεν δώσουμε σωστή απάντηση τότε δεν κερδίζουμε λεφτά και μας κάνει print την σωστή απάντηση.
62
63 System.out.print("\n Wrong answer , Money : " + money + " , The Correct answer was : " + questions[i].answer + " .\n\n");
64
65 }
66
67 }
68 System.out.println("\n You got " +money + " money" + " from the " + questions.length + " questions you have answered."); // συνολικά πόσα λεφτά κερδίσαμε .
```

### 3.2)

Η κλάση question.

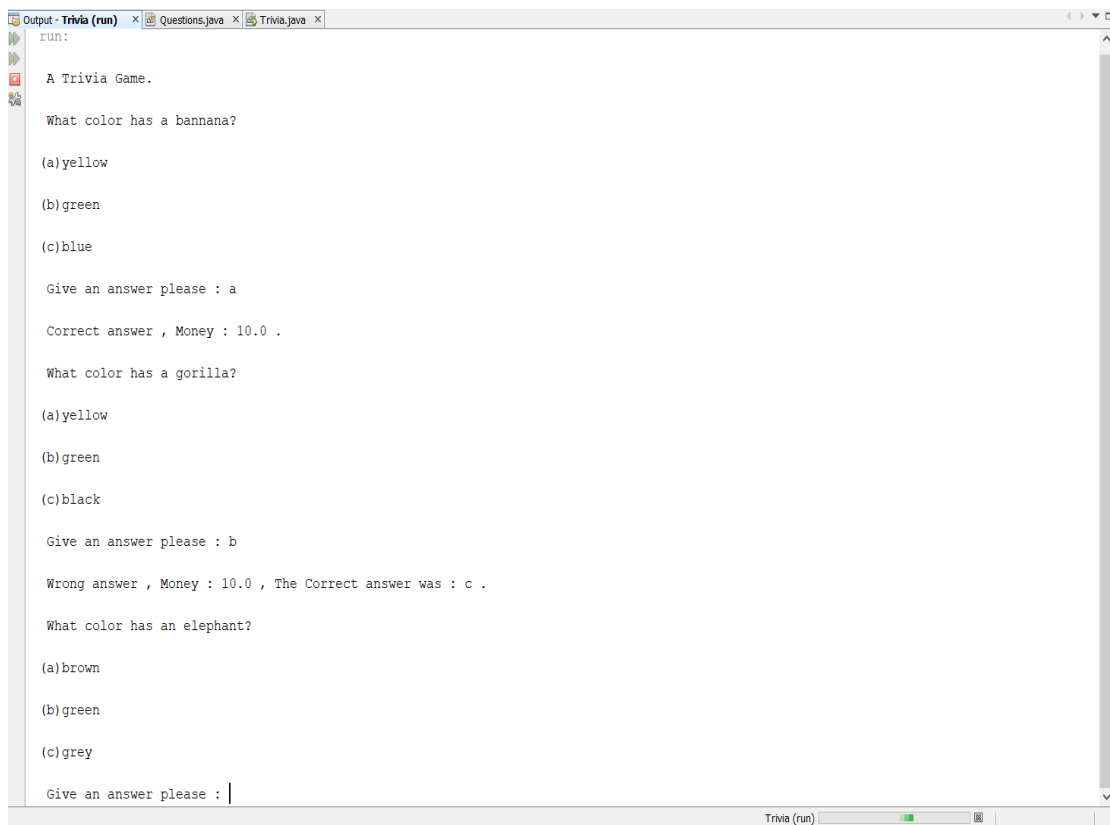




```
1 package test1;  
2  
3  
4 public class Questions {  
5     String act;  
6     String answer;  
7  
8     public Questions(String act, String answer) {  
9         this.act = act;  
10        this.answer = answer;  
11    }  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22 }
```

3.3)

Τρέξιμο του προγράμματος.

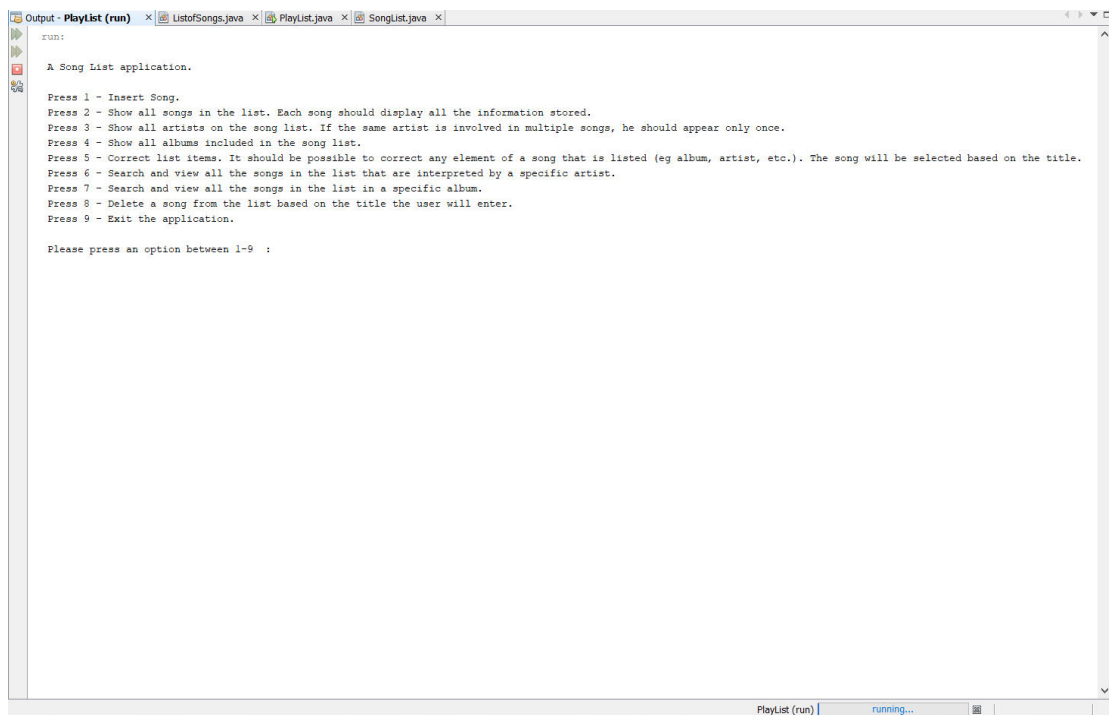


```
run:  
  
A Trivia Game.  
  
What color has a bannana?  
  
(a)yellow  
(b)green  
(c)blue  
  
Give an answer please : a  
  
Correct answer , Money : 10.0 .  
  
What color has a gorilla?  
  
(a)yellow  
(b)green  
(c)black  
  
Give an answer please : b  
  
Wrong answer , Money : 10.0 , The Correct answer was : c .  
  
What color has an elephant?  
  
(a)brown  
(b)green  
(c)grey  
  
Give an answer please : |
```

## Τέταρτη άσκηση .

4.1)

Το menu μας.



```
Output - Playlist (run) x ListOfSongs.java x Playlist.java x SongList.java x
run:
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song will be selected based on the title.
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 :
```

4.1)

Καταχώρηση τραγουδιού.

```
Output - Playlist (run) x ListOfSongs.java x Playlist.java x SongList.java x
Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 1

Insert name of song : Lithium

Insert name of artist : Nirvana

Insert duration of song : 4

Insert name of album : Nevermind

Song added to playlist.
```

## 4.2)

Εμφάνιση όλων των τραγουδιών της λίστας. Για κάθε τραγούδι θα πρέπει να εμφανίζονται όλες οι πληροφορίες που έχουν αποθηκευτεί.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 2

Title of song : Lithium
Artist : Nirvana
Time : 4.0 seconds
Album : Nevermind
```

#### 4.3)

Εμφάνιση όλων των καλλιτεχνών που συμμετέχουν στην λίστα των τραγουδιών. Αν ο ίδιος καλλιτέχνης συμμετέχει σε πολλά τραγούδια θα πρέπει να εμφανίζεται μόνο μια φορά.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 3

Artist name : Nirvana
```

#### 4.4)

Εμφάνιση όλων των άλμπουμ που συμμετέχουν στην λίστα των τραγουδιών.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 4

Album name : Nevermind
```

#### 4.5)

Διόρθωση των στοιχείων της λίστας. Θα πρέπει να δίνεται η δυνατότητα να διορθωθεί οποιοδήποτε στοιχείο ενός τραγουδιού που είναι καταχωρημένο στην λίστα (π.χ. άλμπουμ, καλλιτέχνης, κλπ.). Η επιλογή του τραγουδιού θα γίνεται με βάση τον τίτλο.

```
Output - Playlist (run) x ListOfSongs.java x Playlist.java x SongList.java x
Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 5

Give song name : Lithium

Insert new name of song : Downunder

Insert new name of artist : Menatwork

Insert new duration of song : 5

Insert new name of album : Molly
```

```
Output - Playlist (run) x ListOfSongs.java x Playlist.java x SongList.java x
Insert new name of album : Molly

A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 2

Title of song : Downunder
Artist : Menatwork
Time : 5.0 seconds
Album : Molly
```

## 4.6)

Αναζήτηση και προβολή όλων των τραγουδιών της λίστας που ερμηνεύονται από συγκεκριμένο καλλιτέχνη.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 6

Give artist name : Menatwork

Title of song : Downunder
Artist : Menatwork
Time : 5.0 seconds
Album : Molly
```

## 4.7)

Αναζήτηση και προβολή όλων των τραγουδιών της λίστας που εμπεριέχονται σε συγκεκριμένο άλμπουμ.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 7

Give album name : Molly

Title of song : Downunder
Artist : Menatwork
Time : 5.0 seconds
Album : Molly
```

## 4.8)

Διαγραφή τραγουδιού από την λίστα με βάση τον τίτλο που θα εισάγει ο χρήστης.

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 8

Give Song name to delete : Downunder

Song deleted from playlist.
```

```
A Song List application.

Press 1 - Insert Song.
Press 2 - Show all songs in the list. Each song should display all the information stored.
Press 3 - Show all artists on the song list. If the same artist is involved in multiple songs, he should appear only once.
Press 4 - Show all albums included in the song list.
Press 5 - Correct list items. It should be possible to correct any element of a song that is listed (eg album, artist, etc.). The song w:
Press 6 - Search and view all the songs in the list that are interpreted by a specific artist.
Press 7 - Search and view all the songs in the list in a specific album.
Press 8 - Delete a song from the list based on the title the user will enter.
Press 9 - Exit the application.

Please press an option between 1-9 : 2

A Song List application.
```