

```
1 namespace RepasoCurso
2 {
3     public enum GenderType
4     {
5         MALE,
6         FEMALE,
7         NONBINARY
8     }
9
10    public class Persona
11    {
12        private string _name;
13        private int _age;
14        private string _DNI;
15        private GenderType _gender;
16        private double _weight;
17        private double _height;
18
19        public Persona()
20        {
21            _gender = GenderType.NONBINARY;
22        }
23
24        public Persona(string name, int age, GenderType gender)
25        {
26            _name = name;
27            _age = age;
28            _gender = gender;
29        }
30
31        public Persona(string name, int age, GenderType gender, string
32            DNI, double weight, double height)
33        {
34            _name = name;
35            _age = age;
36            _gender = gender;
37            _DNI = DNI;
38            // _DNI = GenerateDNI();
39            _weight = weight;
40            _height = height;
41        }
42
43        public string GetName()
44        {
45            return _name;
46        }
47
48        public void SetName(string name)
49        {
50            _name = name;
51        }
52
53        public string Name
```

```
53     {
54         get
55         {
56             return _name;
57         }
58         set
59         {
60             _name = value;
61         }
62     }
63
64     public string GetDNI()
65     {
66         return _DNI;
67     }
68
69     public string DNI => _DNI;
70
71     public double CalculateIMC()
72     {
73         return _weight / (_height * _height);
74     }
75
76     public bool IsMajorAge()
77     {
78         return _age >= 18;
79     }
80
81     public bool IsCorrectGender(GenderType gender)
82     {
83         return _gender == gender;
84     }
85
86     public override string ToString()
87     {
88         return $"{Name} {DNI}";
89     }
90
91     private string GenerateDNI()
92     {
93         Random random = new Random();
94         int numberDNI = random.Next(99999999);
95         int letter = numberDNI % 23;
96
97         char letterDNI = GetDNIletter(letter);
98
99         return "" + numberDNI + letterDNI;
100    }
101
102    private char GetDNIletter(int module)
103    {
104        char result = ' ';
105        switch (module)
```

```
106         {
107             case 0:
108                 result = 'T';
109                 break;
110             default:
111                 result = 'J';
112                 break;
113         }
114         return result;
115     }
116 }
117 }
```