

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Preparing for Object Oriented Programming

PDF generated at 18:09 on Wednesday 16th August, 2023

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Object Oriented Hello World

PDF generated at 13:37 on Friday 11th August, 2023

```
1  using System;
2
3  namespace HelloWorld
4  {
5      class Mainclass
6      {
7          public static void Main(string[] args)
8          {
9              Message m = new Message("Hello World");
10             m.Print();
11
12             Message[] messages = new Message[5];
13             messages[0] = new Message("Welcome Back!");
14             messages[1] = new Message("What a lovely name");
15             messages[2] = new Message("Great name");
16             messages[3] = new Message("Oh hi");
17             messages[4] = new Message("That is a silly name");
18
19
20             Console.WriteLine("Enter name: ");
21             string name = Console.ReadLine();
22             if (name.ToLower() == "mark")
23             {
24                 messages[0].Print();
25             } else if (name.ToLower() == "fred")
26             {
27                 messages[1].Print();
28
29             } else if (name.ToLower() == "wilam")
30             {
31                 messages[2].Print();
32             } else if (name.ToLower() == "alice")
33             {
34                 messages[3].Print();
35             } else
36             {
37                 messages[4].Print();
38             }
39
40
41         }
42     }
43 }
```

```
1  using System;
2
3  namespace HelloWorld
4  {
5      public class Message
6      {
7          private string _text;
8          public Message (string text)
9          {
10              _text = text;
11          }
12          public void Print()
13          {
14              Console.WriteLine(_text);
15          }
16      }
17  }
```

```
Message.cs Program.cs  Microsoft Visual Studio Debug  +  Hello World  Sign in  Live Share  File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search (Ctrl+Q)  Hello World  Message.cs Program.cs  Microsoft Visual Studio Debug  +  Hello World  Enter name: alice  Oh hi  Microsoft Visual Studio Debug  +  Hello World  Enter name:  H:\C\Hello World\bin\Debug\net6.0\HelloWorld.exe (process 20788) exited with code 0. Press any key to close this window . . .  Solution Explorer  Solution Hello World (1)  Solution Items  C# Message.cs  Dependencies  C# Message.cs  C# Program.cs  Test Explorer  Search (Ctrl+F)  Output  Show output from: Build  Add to Source Control  Select Repository  Output Error List  Ready  Note: Tests in UWP projects can only be discovered by clicking "Run All".
```

The screenshot shows a Microsoft Visual Studio IDE interface. The main window displays a C# code editor for a file named `Program.cs`. The code defines a `Main` method that creates an array of `Message` objects and prints them based on user input. A red circular breakpoint marker is placed on the line `if (name.ToLower() == "musk")` at line 22. The code editor has syntax highlighting and line numbers from 9 to 43. To the right of the code editor is a diagnostic tools window titled "Diagnostics session: 12 seconds". It contains three tabs: "Events", "Process Memory (MB)", and "CPU (% of all processors)". The "Events" tab shows a single event at timestamp 13. The "Process Memory (MB)" tab shows memory usage from 0 to 13 MB. The "CPU (% of all processors)" tab shows CPU usage at 0%. Below the code editor are several tool windows: "Autos", "Locals", "Watch", "Call Stack", "Breakpoints", "Exception Settings", "Command Window", "Immediate Window", and "Output".

```
9     Message m = new Message("Hello World");
10    m.Print();
11
12    Message[] messages = new Message[5];
13    messages[0] = new Message("Welcome Back!");
14    messages[1] = new Message("What a lovely name");
15    messages[2] = new Message("Great name");
16    messages[3] = new Message("Hi there");
17    messages[4] = new Message("That is a silly name");
18
19    Console.WriteLine("Enter name: ");
20    string name = Console.ReadLine();
21    if (name.ToLower() == "musk")
22    {
23        messages[0].Print();
24    } else if (name.ToLower() == "fred")
25    {
26        messages[1].Print();
27    } else if (name.ToLower() == "milan")
28    {
29        messages[2].Print();
30    } else if (name.ToLower() == "alice")
31    {
32        messages[3].Print();
33    } else
34    {
35        messages[4].Print();
36    }
37
38
39
40
41
42 }
```