Name: Class:

Task 1

The code editor in many IDEs will colour different parts of computer code with different colours. This is known as syntax highlighting.

Look at the below code written using pseudocode.

OUPTUT "Please enter your age"

INPUT age
IF age < 15

 THEN
 OUTPUT "Sorry, you cannot watch this film"
ELSE
 OUTPUT "Please enter"
ENDIF

(a) Apply syntax highlighting to the program above as follows:

* Blue – keywords
* Purple – variable names
* Red – Strings
1. The first line of code was originally written as:

OUTPUT "Please enter your age

Note that the final " is missing so the string doesn’t end.

 Explain how the syntax highlighting will change in the program.

(c) Explain how syntax highlighting can help a programmer to detect bugs in their program.

Task 2

The following code shows code written in C#.

using System; public class Program {public static void Main() {Console.WriteLine("Enter your name");String name = Console.ReadLine(); Console.WriteLine("Hello, " + name);}}

The code is not easy to understand for other programmers.

Apply a prettyprint to the code so that it is rearranged into something that is easier to read.

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|  |

Task 3

For the language that you have been studying for GCSE, search for possible IDEs that you could use – for example “Python IDE comparison”.

In the table below, record **five** features that the IDE has to help programmers. For each feature, explain what it means.

|  |  |  |
| --- | --- | --- |
|  | **IDE 1** | **IDE 2:**  |
| **IDE name** |  |  |
| **Feature 1** |  |  |
| **Feature 2** |  |  |
| **Feature 3** |  |  |
| **Feature 4** |  |  |
| **Feature 5** |  |  |

Task 4

(a) Open the IDE that you use to write programs in. Translate the code in Task 1 into the language and IDE that you are using.

(b) Test the program to see that it works correctly.

(c) Now see if your IDE has each of the following features.

* Code editor
* Syntax highlighting
* Line numbers
* Prettyprint
* Error diagnostics
* Breakpoints
* Stepping through code
* Variable watching
* Auto-completion
* Auto-correction
* Prettyprint

 If you find any of these features in your IDE, screenshot examples of how it works below.