Wk1 A1b Binary, Decimal Numbers

Make a copy of this file and enter your answers in the tables below and submit the document (with the correct filename) to Canvas Assignment 1b.

You must use the following filenaming convention or your assignment may be rejected:

A1a *firstname lastname*.docx

1. Convert decimal numbers to binary.

|  |  |  |  |
| --- | --- | --- | --- |
| 15 | 94 | 254 | 64 |
| 1111 | 01011110 | 11111110 | 1000000 |
| 2. Convert binary numbers to decimal. | |  |  |
| 1011 | 11101010 | 100011 | 0011111 |
| 11 | 234 | 35 | 31 |

1. Provide the decimal values for the ASCII codes for all the letters in your name. Put as much of your first and last name as will fit on the first line and put the corresponding decimal codes for each ASCII character on the next line.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R | y | a | n | F | a | r | r | u | g | g | i |
| 082 | 121 | 097 | 110 | 070 | 097 | 114 | 114 | 117 | 103 | 103 | 105 |

1. Use Web to research history. Give 4-5 sentences about the history of each of the languages below.

|  |  |
| --- | --- |
| C# | C# was developed in 2000 by Anders Hejlsberg, a software engineer for Microsoft. It was originally named “COOL” which stood for “C-like Object-Oriented Language” but was later changed to “C-Sharp” to avoid legal issues. Designed to be a part of the .NET framework, the language would soon become approved by the ECMA standard in 2002. Like other languages starting with “C,” C# was created as a variant of the language “C.” |
| C++ | C++ was created in 1982 by Bjarne Stroustrup, a Danish computer scientist, with the intention to make a variant of the C-language that was more class and container oriented. The first public edition of C++ was released in 1985 after rigorous work studying, greatly improving, and extending the overall functionalities of C. Starting in the early 90’s, the language would see wide commerical use and eventually became the new standard for OOP. Modern implementations of C++ include heavy usage in video games, video game engines, Windows applications, and code libraries. |
| Java | Java was developed by James Gosling while working at Sun Microsystems in 1995. It was originally intended to service cable television providers but was proven to be much too feature-rich for the basic needs of these providers. In 2006, Java would become a free, open-source software that could be used by anyone as protected by Creative Commons/Public Licenses. Today, Java is used by over three billion devices and is what the majority of Android devices currently run. It’s also the software that runs the most popular video game of all time: Minecraft. |
| Python | Python’s development began in the 1980’s by Guido van Rossum, a software engineer from the Netherlands. The language’s biggest features in its early days included garbage collecting and Unicode support. Simplicity is an important philosophy according to van Rossum, as Python is written very minimally compared to most other functional languages. Python’s name is meant to reference the show “Monty Python” to encourage having fun while programming. |

Rubric

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| --- | --- |
| Used correct filename----- | 5 |
| Problem 1.-------------------- | 4 |
| Problem 2.-------------------- | 3 |
| Problem 3.-------------------- | 3 |
| Problem 4.-------------------- | 15 |
| TOTAL------------------------ | 30 |