Problem Domain:	String & Number Practice
Mission Summary:	Convert String / Integral Formats
Prerequisite:	Completion of "Python 1000" (available at Udemy.com)
Your Script Name:	PR02_HexDump.py
Solution Name:	PR02S_HexDump.py & PR02S_HexDump_BONUS.py
Version:	1.01

Synopsis

New software developers are often challenged by numeric & string formats. While the student who has completed Python 1000 will recall that every character has a numeric representation, we should begin to appreciate that there are many integral formats available. In this exercise, our mission is to display a string of characters in hexadecimal format.

Requirements

1) Create a script called PR02_HexDump.py
2) The job of PR02_HexDump.py is to
   A) Prompt a user for a string
   B) Display, or "dump" their input-string
   C) Using hexadecimal notation

3) BONUS:
   A) Display your hex dump in an 8-column wide table

```
0x50  0x79  0x74  0x68  0x6f  0x6e  0x20  0x69
0x73  0x20  0x77  0x68  0x61  0x74  0x20  0x50
0x79  0x74  0x68  0x6f  0x6e  0x20  0x64  0x6f
0x65  0x73  0x20  0x2d  0x20  0x48  0x6f  0x77
0x20  0x6c  0x6f  0x77  0x20  0x63  0x61  0x6e
0x20  0x79  0x6f  0x75  0x20  0x67  0x6f  0x3f
```

   B) Note that each column in the above table is space delimited

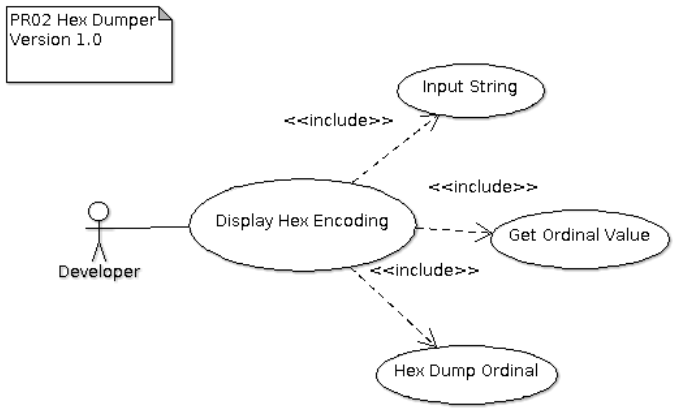
Developer Notes

1) A string is merely a collection of characters
2) A character can be converted to its numerical ("**ord**inal number") representation by using Python's built-in **ord()** function
3) We can use Python's build-in **hex()** function to convert any integer / ordinal to a hexadecimal string
4) Our task therefor is to merely
   A) Use Python's build-in **input()** function to return a string from a user
   B) Convert each character to its ordinal / integer value, then
   C) Use Python to convert and display each ordinal in hexadecimal
5) Refer to the activity diagram (below) for a graphical summary

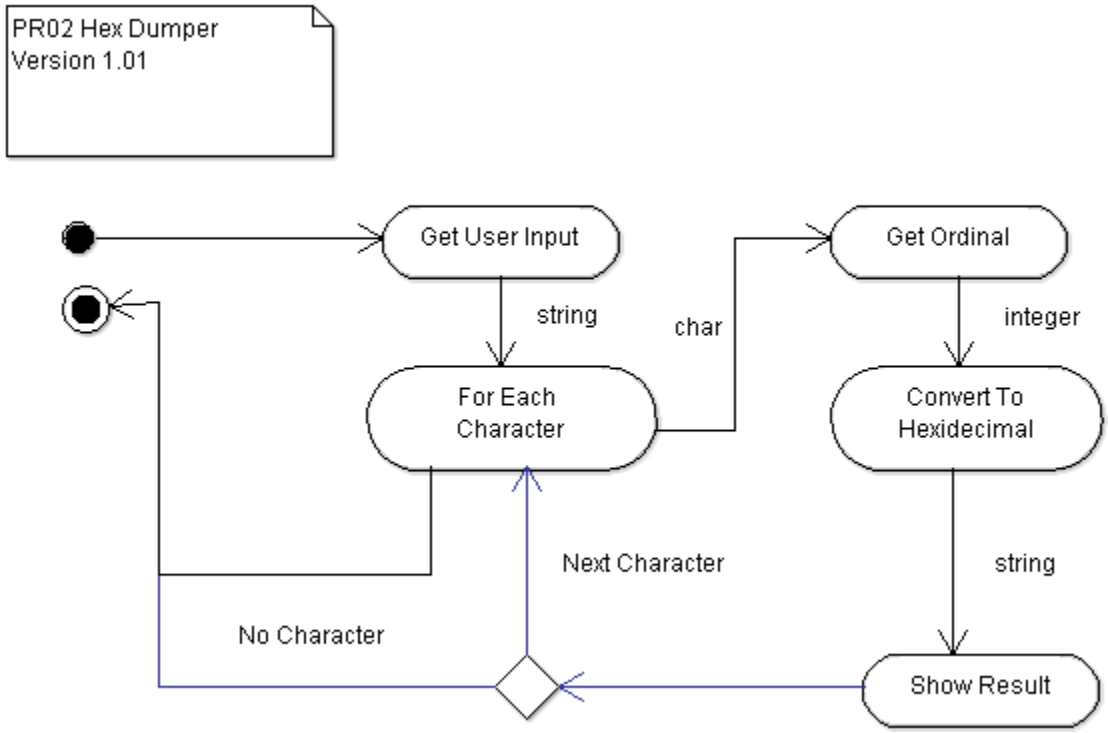
Related Diagrams

The following is a graphical requirement overview.

1.) The top-level Use Case denotes the capabilities defined in the Developer Notes section:



2.) The main Activity Diagram depicts a graphical summary of the requirements, as well as a reasonably demonstrative operational overview:



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