N4/5 Computing Science – Software Design and Development

Due Date: Thurs 30th Nov

Name

Homework 6

Read the Python program below and answer the questions that follow.

song\_name = raw\_input("Enter the song name: ")

number\_downloads = int(raw\_input("How many downloads has the song had? "))

chart\_position = int(raw\_input("What is the songs chart position? "))

while number\_downloads >= 200000 and chart\_position <= 40:

 print "Song still on Radio playlist!"

 play\_code = song\_name + str(chart\_position)

 print "System Play Code", play\_code

 number\_downloads = int(raw\_input("How many downloads has the song had? "))

 chart\_position = int(raw\_input("What is the songs chart position? "))

print "Song OFF Radio playlist!"

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1. Name the variables in the program and state their data types.

Variable Data Type

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1. What does Line 3 of the program do?

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1. For lines 4 - 9 name the iteration type, describe the purpose of the loop and when it will stop.

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1. Explain the Condition in line 4.

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1. Name the functions used in Line 6 and describe what they do in this situation.

Function Used for in program

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1. Explain the assignment in Line 6.

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1. Lines 8 and 9 have already run in Lines 2 and 3, explain why they are necessary again.

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1. Explain Line 10 as well as when it will actually execute.

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1. If the song is Gangnam Style, 560000 downloads and chart position 13 describe a trace through the program. State each condition and explain how the program would flow.

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1. The program has to be changed so songs with 500000 or more downloads or still inside the top 100 chart are kept on the radio playlist. Re-write the loop condition for line 4 only.