Assignment – Day 10

1. Write a recursive function that takes a string **word** as input and check if the given **word** is palindrome. Return True if string is palindrome else return False. **[Marks: 2]**

2. Given a list of tuples contains weight (w) and value (v) pair for items and the capacity of a bag. Write a function that calculate the maximum item value that can be carried in the bag.
   Note - Items can be carried in parts/fraction.
   Input
   ===========
   Items as (value, weight) pairs
   Items = [(60, 10), (100, 20), (120, 30)]
   capacity = 50;
   Output
   ======
   240 **[Marks: 1]**

3. Write a recursive function that takes an integer number (**num**) as input and add all the digits of the number. **[Marks: 2]**

Note: For the recursive functions don't forgot to draw the recursive tree.