LINKED LIST, STACKS
AND QUEUES

P.1. Design and Implement a recursive program in Pascal to work out the length of a linked list (number of nodes).

P.2. Design and Implement a recursive program in Pascal to evaluate, given a point, a polynomial using the Horner´s rule.

P.3. Given a Chain of characters implemented by means of a Linked list (List), design and Implement a program in Pascal which removes any repeated character from List.

P.4. Design and Implement a program in Pascal which, given a text, generates a linked list containing all the different words appearing on the text besides their frequency (times of appearance).

P.5. Design and Implement an iterative program in Pascal which, using an stack, works out the factorial function.

P.6. Design and Implement an iterative program in Pascal which, using an stack, determines the binary representation of a positive integer given the decimal one.

P.7. If a palindrome is a word, phrase, number or other sequence of units that has the property of reading the same in either direction (the adjustment of punctuation and spaces between words is generally permitted) then design and implement an iterative program in Pascal which, using an stack and a queue, determines whether a chain of characters (phrase) is a palindrome.