[Polynomial Arithmetic with LinKed List]

A useful application of linKed list is the representation of polynomial rexpression. For example :-

$$5x^4 + x^3 + 6x + 2$$

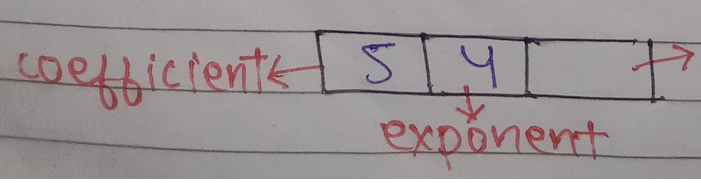
In each term we have an coefficient & an exponent. For eg., in the term $5x^4$, coefficient is 5 & exponent is 4.

The whole polynomial is represented through LinKed List where each node will represent a term of the expression.
The structure of each node will be -

```
struct node
{
    float coefficient;
    int exponent;
    struct node *link;
};
```

Here, the info part of the node contains coefficient & exponent & the link part is same as before & will be used to point to the next node of the list.

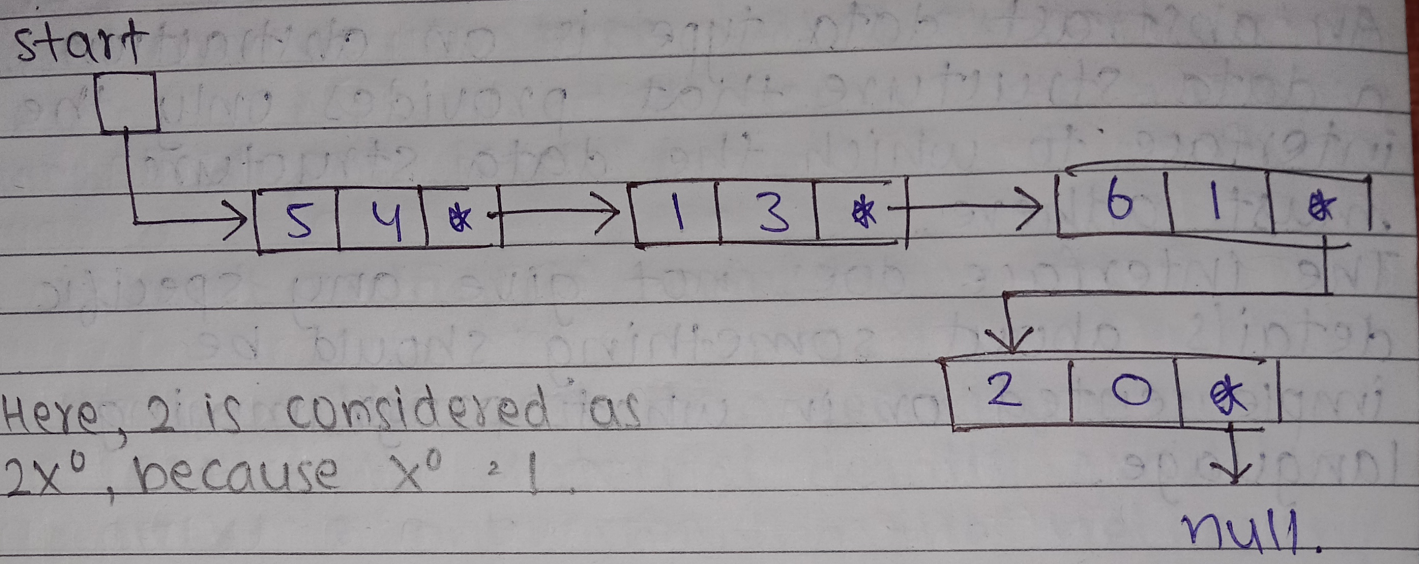
The node representation of the term $5x^4$ can be represented as:-



The polynomial,

$$5x^4 + x^3 + 6x + 2$$

can be represented through linked list as :-



* Here, 2 is considered as $2x^0$, because $x^0 = 1$.