```c
#include<stdio.h>
#include<conio.h>

void main()
{
        static float forw_table[30][30];
        int i,j,k,n;
        float u,term,h,inp_x,est_y,x0,sum,y0;

        printf("\nEnter number of data points required --> ");
        scanf("%d",&n);
        printf("\nEnter your data \n");
        for(i=0;i<n;++i)
        {
                printf("\nEnter x[%d] = ",i);
                scanf("%f",&forw_table[i][0]);

                printf("\nEnter y[%d] = ",i);
                scanf("%f",&forw_table[i][1]);
        }
        printf("\nEnter a input x value for estimation --> ");
        scanf("%f",&inp_x);

        for(j = 2;j<=n;++j)
        {
                for(i=0;i<n-j+1;++i)
                        forw_table[i][j] = forw_table[i+1][j-1] -
forw_table[i][j-1];
        }

        printf("\nThe forward differnce table is given below::\n");
        printf("\n\n\t  X\t  Y\t  dy");
        if(n>=3)
                for(i=3;i<=n;++i)  printf("\td%dy     ",i-1);
        printf("\n\n");
        for(i=0;i<n;++i)
        {
                for(j=0;j<=n;++j)  printf("\t%3.2f",forw_table[i][j]);
                printf("\n\n");
        }

        x0 = forw_table[0][0];
        h = forw_table[1][0] - x0;
        u = (inp_x - x0)/h;
        y0 = forw_table[0][1];

        sum = y0;
        term = 1;
        for(j = 2;j<=n;++j)
        {
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            term = term * u/(j-1);
            sum = sum + term*forw_table[0][j];
            u = u-1;
    }
    est_y = sum;

    printf("\n\nThe estimated value for x = %fis y = %f",inp_x,est_y);
    getch();
}
```