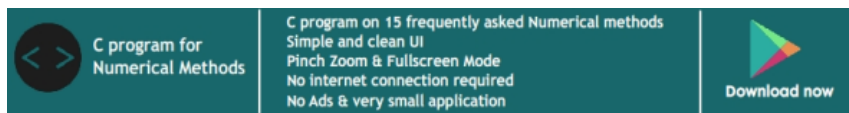# WBUT Assignment Help

For B.tech(CS & IT) , BCA , MCA , B.Sc(CS) Students

AUG **8** 2012

Code for Newton's Backward interpolation in C

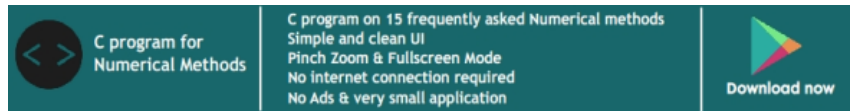C code to implement Newton's Backward interpolation . Compiled in DEV C++

(https://play.google.com/store/apps/details?id=com.dipanjan.numericalmethods)

```c
#include<stdio.h>
#include<conio.h>
#include<math.h>
#include<stdlib.h>
main()
{
      float x[20],y[20],f,s,d,h,p;
      int j,i,k,n;
      printf("enter the value of the elements :");
      scanf("%d",&n);
      printf("enter the value of x: nn");
      for(i=1;i<=n;i++)
      {
                  scanf("%f",&x[i]);
                  }
            printf("enter the value of y: nn");
      for(i=1;i<=n;i++)
      {
                  scanf("%f",&y[i]);
                  }
                  h=x[2]-x[1];
            printf("enter the searching point f:");
scanf("%f",&f);
s=(f-x[n])/h;
d=y[n];
p=1;
for(i=n,k=1;i>=1,k<n;i--,k++)
{
            for(j=n;j>=1;j--)
            {
                        y[j]=y[j]-y[j-1];
                        }
                        p=p*(s+k-1)/k;
                        d=d+p*y[n];
}
printf("for f=%f ,ans is=%f",f,d);
getch();
}
```

You might be also interested in :

- Gauss Elimination Method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-gauss-elimination-method-in-c/)
- Lagrange interpolation (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-lagrange-interpolation-in-c/)
- Newton Divided Difference (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-newton-divided-difference-in-c/)
- Runge Kutta method method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-runge-kutta-method-method-in-c/)
- Taylor series method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-taylor-series-method-in-c/)
- Modified Euler's method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-modified-eulers-method-in-c/)
- Euler's method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-eulers-method-in-c/)
- Waddle's Rule method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-waddles-rule-method-in-c/)
- Bisection method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-bisection-method-in-c/)
- Newton's Backward interpolation (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-newtons-backward-interpolation-in-c/)
- Newton's forward interpolation (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-newtons-forward-interpolation-in-c/)
- Newtons rapson method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-newtons-rapson-method-in-c/)
- Regular Falsi method (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-regular-falsi-method-in-c-programming/)
- SIMPSON'S RULE (https://wbutassignmentshelp.wordpress.com/2012/08/08/code-for-simpsons-rule-in-c-programming/)
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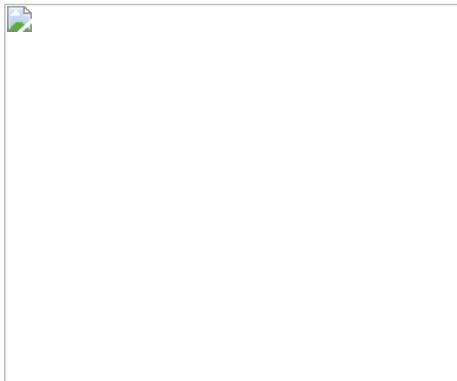
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