【110上】1504資料結構 Data Structures

B1 (Bonus) Power and Polynomial

Due-date：2021/11/20 (Sat.) 23:30

參考網頁:

https://sites.google.com/view/sjshyudsimf/programming-assignment/b1-bonus-power-and-polynomial?authuser=0

Requirements :

Write a program for computing

(1) x^n, and

(2) f(x) for x=1, 2, ... , n where f(x)=a0+a1x^1+a2x^2+ ... ak-1x^(k-1)

Please compare your naive algorithms against the well-known ones you might find by comparing the performances of them when running, say 100000000, times .

(1) Power / Exponentiation

•Input: x, n

•Output: x^n

(2) Polynomials

•Input: k, n, a[0], a[1], ... , a[k-1] (a[i]'s may be read from a file, generated randomly, assigned by Edit's via UI, etc.)

•Output: f(1), f(2), ... , f(n) where

f(x) = a[0] + a[1]x + a[2]x^2 + ... + a[k-1]x^(k-1)

Bonus :

1.合理性測試

2. 程式註解

3. 簡潔美觀的 user interface

4. 詳細的說明文件及執行後的截圖畫面(.pdf)。

5. 其他

注意：

1. 要是C++builder都裝不起來的同學，可以使用自己認為好用的開發環境。要是助教無法執行，需另外約時間demo。