

Crypto Project

- Sample Encrypted Data:
 - Turing: CS150-01 Public\CryptoProjectData
- Crypto_Short_Keys_P_U.out
- Crypto_Long_Keys_O_R.out

Bonus +10 points on Programming Projects

- CryptoBonus_Keys_O_R_E_G_O_N.out
- CryptoBonus_Keys_S_C_D.out

Topics

- Do/While
- Arrays
- Files
- Functions
- Arrays & Functions

Function & Arguments

- Write a function to compute the sum and average of three integers, and return the values of sum and average.
- An example function call would look like:

```
int val1=5, val2 =4, val3=19;
int sum;
double average;
sumAndAverage(val1, val2, val3,
              sum, average);
```

Functions & Arrays

- Write a function that computes the average of all the values in an array of integers.

```
const int ARRSIZE=100;
int arr[ARRSIZE];
int avg;
// store ints in arr
avg = arrayAvg(arr, ARRSIZE);
```

Files

- Read a file that contains two integers per line. Output the sum of each pair of integers to a file, one per line.

Input	Output
3 4	7
11 9	20
0 0	0
9 1	10

2 Dimensional Array

- We collected rainfall data for various cities over a number of days. This data is stored in a 2D array of integers, the rows are the cities, the columns are the days.
- For each day, find which city had the most rainfall and which city had the least rainfall and print both to the screen.

```
const int CITIES=100;
const int DAYS=365;
int rainfall[CITIES][DAYS];
```