Exercises for lab 2 of CS3101

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1 Exercise 1

Read the following sections of the Julia documentation:


Write a Julia function that takes as input two numbers (integers or floats) and returns the absolute value of their difference.

2 Exercise 2

Read the following sections of the Julia documentation:


1. Write a Julia program that computes the sum of two vectors (whose coefficients are either integers or floats) of the same length and computes their sum.

2. Write a Julia program that takes as input two vectors $U$ and $V$ (whose coefficients are either integers or floats) of the same length and computes the square matrix $A$ such that $A[i,j]$ is $U[i] + V[j]$.

3 Exercise 3

Read the following sections of the Julia documentation:

http://en.wikipedia.org/wiki/Babylonian_method

Write a Julia program that takes as input an integer value $n$ and calculates an approximation of its square root up to a specified precision $p$, using either the Bakhshali approximation or the Babylonian method. (The choice is yours.)