

InLabP2 - Python

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

python_problem	
This package performs misc operations	3

Chapter 2

Namespace Documentation

2.1 python_problem Namespace Reference

This package performs misc operations.

Functions

- def `make` (filename)
Produces list of numbers present in the file.
- def `fun1` (l)
Sorts the numbers.
- def `fun2` (l, x)
Binary Search.
- def `fun3` (L)
Calculates determinant.

Variables

- def `L` = `make`("data")
- def `ans` = `fun2`(L, 48)

2.1.1 Detailed Description

This package performs misc operations.

2.1.2 Function Documentation

2.1.2.1 fun1()

```
def python_problem.fun1 (  
    l )
```

Sorts the numbers.

Parameters

<i>l</i>	List which contains the numbers for input
----------	---

Returns

Sorted list of numbers

Sorts the numbers using bubble sort, which is a common sorting algorithm.

2.1.2.2 fun2()

```
def python_problem.fun2 (
    l,
    x )
```

Binary Search.

Parameters

<i>l</i>	Sorted list of numbers
<i>x</i>	Number to be searched

Returns

Number of probes it took to find the number

A simple binary search implemenetation. Returns -1 if the number is not present in the list.

2.1.2.3 fun3()

```
def python_problem.fun3 (
    L )
```

Calculates determinant.

Parameters

<i>L</i>	Matrix whose determinant needs to be found
----------	--

Returns

Determinant of L i.e. $|L|$

Recursively finds the determinant of matrix.

2.1.2.4 make()

```
def python_problem.make (
    filename )
```

Produces list of numbers present in the file.

Parameters

<i>filename</i>	Name of the file which needs to be read
-----------------	---

Returns

List of numbers

Read the file where each line is a number. Parse the integer, and insert the number into the list.

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