

## My Project

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# Chapter 1

## File Index

### 1.1 File List

Here is a list of all documented files with brief descriptions:

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## Chapter 2

# File Documentation

## 2.1 python\_problem.py File Reference

### Functions

- def `python_problem.make` (filename)  
*Reads a file containing newline seperated integers and returns a list of those integers.*
- def `python_problem.fun1` (l)  
*Sorts an input list in ascending order.*
- def `python_problem.fun2` (l, x)  
*Performs binary search for a specified input value on a given input list which is assumed to be sorted in ascending order.*
- def `python_problem.fun3` (L)  
*Calculates the determinant of an input matrix given in the format of a list whose elements are lists.*

### Variables

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

### 2.1.1 Detailed Description

#### Author

Team Dominatrix

Illustrates doxygen-style comments for documenting a Python program file and the functions in that file.

### 2.1.2 Function Documentation

#### 2.1.2.1 fun1()

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

Sorts an input list in ascending order.

**Parameters**

<i>l</i>	the input list
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**Returns**

the sorted list

**2.1.2.2 fun2()**

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

Performs binary search for a specified input value on a given input list which is assumed to be sorted in ascending order.

Also prints the mid and low values in each cut.

**Parameters**

<i>l</i>	the input list
<i>x</i>	the value to be searched

**Returns**

1 + the number of times the list had to be cut in half during the binary search to find the input value if it was present in the input list, -1 otherwise

**2.1.2.3 fun3()**

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

Calculates the determinant of an input matrix given in the format of a list whose elements are lists.

**Parameters**

<i>L</i>	the input matrix
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**Returns**

the determinant



#### 2.1.2.4 make()

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

Reads a file containing newline seperated integers and returns a list of those integers.

##### Parameters

<i>filename</i>	name of the input file
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##### Returns

list of integers



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