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LBM18CS091

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AI lab test 1

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(2) → import collections

def main():

"""

main function

"""

starting_node = [[0, 0]]

jug1 = get_jug1()

goal_amount = get_goal(jug1)

check_dict = {}

is_depth = {}

is_depth = get_search_type()

search (starting_node, jug1, goal_amount,
check_dict, is_depth)

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AI lab tent 1

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```
def get_index(node):
```

```
    """
```

```
    returns a key value for a given node
```

```
    node: a list of two integers representing  
    current state of the graph
```

```
    """
```

```
    return pow(7, node[0]) * pow(5, node[1])
```

```
def get_reach_type():
```

```
    """
```

```
    Returns True for DFS, False  
    otherwise
```

```
    """
```

```
    s = input("Enter 'b' for BFS, 'd' for  
              DFS: ")
```

```
    s = s[0].lower()
```


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while s1 != 'd' and s1 != 'b';

s = input("the input is not valid!
enter 'b' for Bf,
'd' for DFS;")

s = s[s].lower()

return s == 'd'

def get_fuga():

" "

Return a list of two integers representing
volumes of the fuga. Take volume of
the fuga as an input from the user.

" "

temp = int(input("Enter first fuga
volume (>1): "))

while temp < 1:

AI lab text 1

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```
temp = int(input("Enter a valid amount  
(> 1): "))
```

```
jug1.append(temp)
```

```
temp = int(input("Enter second  
jug volume (> 1): "))
```

```
while temp < 1:
```

```
temp = int(input("Enter a valid  
amount (> 1): "))
```

```
jug1.append(temp)
```

```
return jug1
```

```
def def get_jug1(jug1):
```

```
"""
```

Return desired amount of water
taken on input from jug1.

def __init__(self, a, b):
 self.a = a
 self.b = b

volume = volume of the jug

print("Receiving the desired amount
of the water...")

max_amount = max(jug1, jug2)

s = "Enter the desired amount of
water (1 - %d) : " % max_amount

goal_amount = int(input(s))

while goal_amount < 1 or goal_amount > max_amount:

goal_amount = int(input("Enter a valid
amount (1 - %d) : " % max_amount))

return goal_amount