Sample Program 11.1

About Arrays

Problem statement. Write a declaration statement to create an array named `a`, of fixed size 100.

Solution

```
a = [0 for i in range(100)]
```

Problem statement. Write a code block to sort the above array (based on the above Solution) from lo-to-hi, and output the minimum and maximum values.

Solution.

```
a.sort()
print("The minimum value is", a[0])
print("The maximum value is", a[len(a) - 1])
```

Problem statement. Write a code block to output the above sorted array, with labels.

Solution.

```
for i in range(len(a)):
  print("a[", i, "] = ", a[i], sep = "")
```

Problem statement. Write a code block to search the above sorted array for any negative value.

Solution.

```
found = False
for i in range(len(a)):
  if a[i] < 0:
    found = True
    break

if found:
  print("At least one negative value found in the array 'a'.")
else:
  print("No negative values found in the array 'a'.")
```

Problem statement. Write a declaration statement to create a dynamic array of strings, named `s`.
Solution.

```
size = int(input("What size do you want for the array [1 or greater]? "))
s = ["" for i in range(size)]
```

Problem statement. Write a code block to sort the above array alphabetically, and output the minimum and maximum values.
Solution.

```
s.sort()
print("The minimum value is", s[0])
print("The maximum value is", s[len(s) - 1])
```

Problem statement. Write a code block to output the above sorted array, with labels.

Solution.

```
for i in range(len(s)):
  print("s[", i, "] = ", s[i], sep = "")
```

Problem statement. Write a code block to count the number of blanks in the above array.

Solution.

```
nBlanks = 0
for i in range(len(s)):
  if len(s[i]) == 0:
    nBlanks += 1

print("#of blanks found in the array 's':", nBlanks)
```