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Spring 2019

Course: CSE427, Section 1

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Date: 20<sup>th</sup> March, 2019

# Assignment 01

**Code Ref:** <https://github.com/SheehabX/North-South-University>

a) List of all variables:

```
→ Objectx X
→ int top //State variable
→ ArrayList stackObjects //State variable
```

b) Characteristics of Variables:

```
→ Objectx X can be null or any valid object.
→ int top can be 0 if stack is empty or 1+ if not.
→ ArrayList stackObjects can have 0 object, or null object or any
  number of valid objects.
```

c) Characteristics of inputs:

Characteristics of input `Object X` is whether it is null or not.

True if null, i.e: `X = null`

False if any other value, i.e: `X = "String", "0", "abcd"`

d) Blocks of the characteristics after partitioning:

Partition	b1	b2
Q1: Whether Object X is null or not.	true	false

Partition	b1	b2
Q1: Whether <code>stackObjects</code> has null or not.	true	false

Partition	b1	b2	b3
Q1: Value of the <code>int top</code> .	0	1	2 or more

e) Values of each block:

Parameter	b1	b2
X	null	“abcd”

Parameter	b1	b2
<code>stackObjects</code>	(null, “abcd”)	(“abcd”, “edf”)

Parameter	b1	b2	b3
<code>top</code>	0	1	3

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