

1. Write a program in the following steps
  - a. Generates 10 Random 3 Digit number.
  - b. Store these random numbers into an array.
  - c. Then find the 2nd largest and the 2nd smallest element without sorting the array.
2. Extend the above program to sort the array and then find the 2nd largest and the 2nd smallest element.

file name- sortThreeDigitArray.sh

```
#!/bin/bash -x
counter=0
max=0
maxSec=0
min=1000
minSec=1000
for (( i=1; i<=10; i++ ))
do
    num=$((RANDOM%1000))
    if [ $num -lt 100 ]
    then
        num=$(( $num + 100 ))
        value[((counter++))]=$num
    else
        num=$num
        value[((counter++))]=$num
    fi
done
for ((i = 0; i<10; i++))
do

    for((j = 0; j<10-i-1; j++))
    do

        if [ ${value[j]} -gt ${value[j+1]} ]
        then
            # swap
            temp=${value[j]}
            value[j]=${value[j+1]}
            value[j+1]=$temp
        fi
    done
done
echo "Array in sorted order : "
echo ${value[*]}
```

```
echo maxSec=${value[8]}  
echo minSec=${value[1]}
```