

Lab. 6 – Array Operations

1. Define array: *array1* with some strings:
array1=(“Position 1” “Position 2” “Position 3” “Position 4”)
and then test loop for:
 - **for i in \${array1[*]}; do echo \$i; done**
 - **for i in \${array1[@]}; do echo \$i; done**
 - **for i in “\${array1[*]}”; do echo \$i; done**
 - **for i in “\${array1[@]}”; do echo \$i; done**
 2. Define new array with two elements: at index 5 and 7:
 - **New_array[7]=tekst**
 - **New_array[10]=tekst1**
 - Get a number of array elements: **echo \${array1[@]}** and **echo \${New_array[@]}**
 - Get a length of array element #2 and #7: **echo \${array1[2]}** and **echo \${New_array[7]}**
 - Define new array **tablica=([1]=element1 [3]=element3 [5]=element5 [7] element7)**
 - Show the indexes of defines elements: **for i in “\${!tablica[@]}”; do echo \$i; done**
 - Show the content of defines elements: **for i in “\${tablica[@]}”; do echo \$i; done**
 - Add one element into array **tablica+=(element6)**
 - Check the indexes and content of **tablica**
 - Define new array **tab1=(“Edmund” “Stefan” “Aleksander” “Zenon”)**
 - Sort array **tab1**: **tab_sort=(\$(for i in “\${tab1[@]}”; do echo \$i; done | sort)**
 - Display contents of *tab1* and *tab_sort*: **echo “Original: \${tab1[@]}” echo “Sorted: \${tab_sort[@]}”**
 - Delete array **tab_sort**: **unset tab_sort** and delete single element of **tab1**: **unset ‘tab1[2]’** and delete first element of **tab1**: **tab1=**
 3. Searching for a string
 - Create a file: *searchtxt* with content:

```
FILES=`ls -l *.txt`  
for FILE in $FILES  
do  
  IDX=`expr index $FILE .`  
  if [ "$IDX"==0 ]; then  
    IDX=`expr length $FILE`  
  else  
    IDX=`expr $IDX - 1`  
  fi  
  SUB=`expr substr $FILE 1 $IDX`  
  echo "Txt File: $SUB"
```
- done