**NAME: PRINCIA MELITA DSOUZA**

**EMP ID : 2483929**

**Exponential Search**

import java.util.Arrays;

public class expSearch {

public static void main(String[] args){

int[] arr = {6,12,18,24,32};

int length= arr.length;

int value = 18;

int outcome = exponentialSearch(arr,length,value);

if(outcome<0){

System.out.println( "Element is not present in the array");

}else {

System.out.println( "Element is present in the array at index :"+outcome);

}

}

public static int exponentialSearch(int[] arr ,int length, int value ){

if(arr[0]==value){

return 0;

}

int i=1;

while(i<length && arr[i]<=value){

i=i\*2;

}

return Arrays.binarySearch(arr,i/2,Math.min(i,length),value);

}

}

OUTPUT

Element is present in the array at index :2

