13/11/2020

Lab test -1

DHRUVA.M
1BM19CS049

```
void push (int stack[] , int ele , int top)
{
   if (top == SIZE-1)
  {
     printf ("\n Stack overflow");
  }
  else
  {
     top ++;
     stack [top] = ele ;
  }
}
int pop ( int top, int stack [])
{
  int popele;
  if (top ==-1)
     return -1;
  else
  {
   popele = stack [top];
     top --
     return (popele);
  }
}
```

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```
void display (int stack [])
{
  int i;
  printf ("The stack elements are \n");
  for (i= top ; i>=0 ; i--)
  {
   printf (" %d\t", stack [i]);
  }
}
void merge (int stack1[], int stack2[],
                 int stack3[])
{
   int i;
   if (top1 > top2)
   {
    int num = top1 - top2
    for (i=0; i<num; i++)
     {
       push3 (stack3, stack1[i]);
     }
     for (i= num ; i<= top ; i++)
     {
       push3 ( stack3 , stack1[i] + stack2[i-1]);
}    }
```

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```
else if (top2> top1)
{
 int num = top2- top1;
  for (i=0; i<=top1; i++)
  {
   push3(stack3, stack1[i] + stack2[top2-i]);
  }
  for (i= num-1; i>=0 ; i--)
  {
   push3(stack3, stack2[i]);
  }
}
 else if (top2== top1)
 {
   for (i=0; i<= top ; i++)
   {
    push3(stack3, stack1[i] + stack2[top1-i]
   }
 }
}
```