Date

Expt. No. LAB PROG 1 Page No. 1

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```
#include <stdio.h>
#define size 3
int top = -1, choice, num, stack[size];
void push();
void pop();
void display (int []);
int main()
{
  do {
      printf ("Enter your choice \n");
      printf ("1. Push \n");
      printf ("2. Pop \n");
      printf ("3. Display \n");
      printf ("4. Exit \n");
      scanf ("%d", &choice);
      switch (choice)
{
  case 1: push();
          break;
  case 2: pop();
          break;
  case 3: display (stack);
          break;
  case 4: printf ("EXIT");
          break;
  default: printf ("\n INVALID OPTION \n");
}
}
```

Teacher's Signature

```
    while (choice != 4);
    return 0;
}
void push()
{ if (top >= size -1)
{ printf ("Stack Overflow"); }
else
    { printf ("Enter a no. to be pushed");
      scanf ("%d", &num);
      top ++;
      stack [top] = num;
    } }

void pop()
{ if (top <= -1)
  { printf ("Stack is underflow\n");
  }
else { printf ("The popped elements is %d\n",
                stack [top]);
       top --;
  } }

void display (int stack[])
  {
    printf ("The stack elements \n");
    for (int i = top; i >= 0; i--)
    printf ("%d\t", stack [i]);
  }
```

Teacher's Signature