

3.1 Stack Frame Practice

Draw the stack frame of this function below

```
int putChar(int c){
```

Write the instructions needed to call this function in assembly. Pass the value in AX as `int c`

Write the prologue of this function and get the variable `int c` into AX

Draw the stack frame of this function below

```
int printString(char *s){  
    int i = 0;
```

Write the instructions needed to call this function in assembly. Pass the value in AX as `char *s`

Write the prologue of this function and get the variable `char *s` into SI. Initialize `i` to 0.

Draw the stack frame of this function below

```
int drawDot(int x, int y);
```

Write the instructions needed to call this function in assembly. Pass `x = 10, y = 10`

Write the prologue of this function and get the variable `int y` into AX and `int x` into BX.

```
int drawRect(int x0, int y0, int w, int h);
int currX, currY;
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly.
Pass `x0 = 10`, `y0 = 10`, `w = 20`, `h = 10`

Write the prologue of this function and get the variable `int x0` into `AX` and `int y0` into `BX`. Initialize `currX` and `currY` to `x0` and `y0` respectively.

```
int plotLine(int x0, int y0, int x1, int y1){
int dx = x1 - x0;
int dy = y1 - y0;
int D = 2 * dy - dx;
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly.
Pass `x0 = 10`, `y0 = 10`, `x1 = 20`, `y1 = 30`

Write the prologue of this function and get the variable `int x0` into `AX` and `int y0` into `BX`.