





Stack

Stack

```
int foobar(int a, int b, int c)
{
    int xx = a + 2;
    int yy = b + 3;
    int zz = c + 4;
    int sum = xx + yy + zz;
    return xx * yy * zz + sum;
}

int main()
{
    return foobar(77, 88, 99);
}
```

example address

low address 32

stack grows

EBP - 16 sum

EBP - 12 zz

EBP - 8 yy

EBP - 4 xx

EBP saved ebp

EBP + 4 return addr

EBP + 8 a

EBP + 12 b

EBP + 16 c

high address 1024

bottom of stack

while executing foobar

example address

low address 32

stack grows

EBP - 16 sum

EBP - 12 zz

EBP - 8 yy

EBP - 4 xx

EBP saved ebp

EBP + 4 return addr

EBP + 8 a

EBP + 12 b

EBP + 16 c

high address 1024

bottom of stack

after executing foobar

top of stack = ESP

EBP

top of stack = ESP

EBP

[illegible]