

# SCS1312 Operating System Concepts

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```
int f()  
{  
    // Some stuff here  
  
    f();  
  
    return 0;  
}
```

```
f:
    movl $20, %eax
    movl $10, %ebx
    ....
    ....
    ret
```

```
int main(void)
{
    // Some stuff here

    f();

    // Some other stuff here
    return 0;
}
```

```
main:
    movl $100, %eax
    movl $125, %ebx
    ....
    ....
    call _f
    addl %eax, %ebx
    ...
    ...
    ...
```

# Address Binding

1000	movl 100 eax
1001	movl 125 ebx
.	...
1100	call 3000
1101	addl eax ebx
.	...
3000	movl 20 eax
.	movl 10 ebx
.	...
3200	ret
.	...
.	...

## Compile-Time Address Binding

# Address Binding

1000	movl 100 eax
1001	movl 125 ebx
.	...
1100	call 3000
1101	addl eax ebx
.	...
3000	movl 20 eax
.	movl 10 ebx
.	...
3200	ret
.	...
.	...



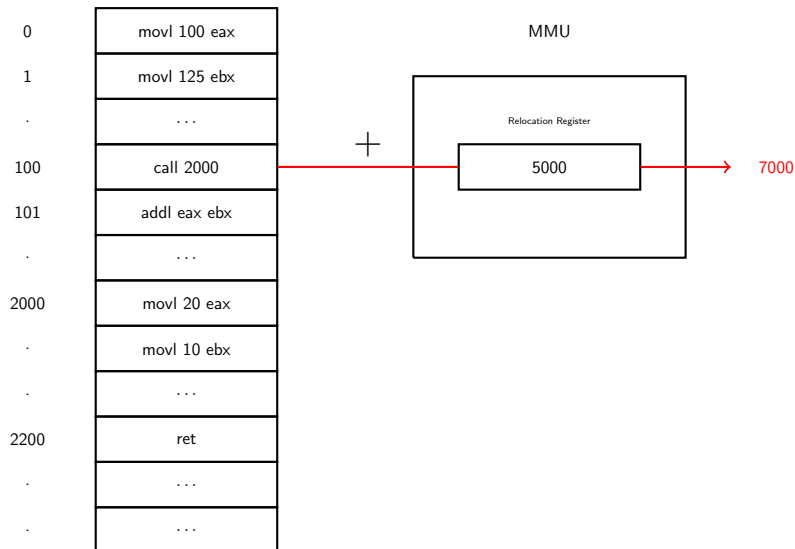
# Address Binding

0	movl 100 eax
1	movl 125 ebx
.	...
100	call 2000
101	addl eax ebx
.	...
2000	movl 20 eax
.	movl 10 ebx
.	...
2200	ret
.	...
.	...

# Load-Time Address Binding

5000	movl 100 eax
5001	movl 125 ebx
.	...
5100	call 7000
101	addl eax ebx
.	...
7000	movl 20 eax
.	movl 10 ebx
.	...
2200	ret
.	...
.	...

# Logical Vs Physical



# Runtime Address Binding ????

Swap-out and Swap-in

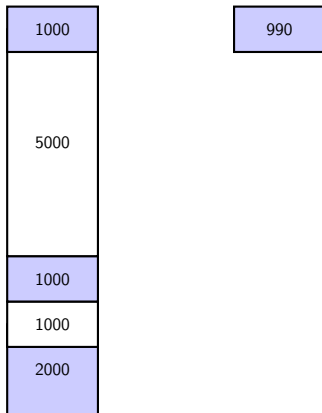
# Addresses Inside Programs

```
int *p;
```

```
p = &x;
```

```
p++;
```

# Allocating Memory



- Best fit
- Worst fit
- First Fit

# Allocating Memory

