Else If

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These slides introduce the else-if construct in C

Else - If

- else if...
  - Actually not a new command
  - Special case of nested if

```
if(expr1){
  …
}
else if(expr2){
  …
}
else if(expr3){
  …
}
else{
  …
}
```

```
if(expr1){
  …
}
else
  if(expr2){
    …
  }
  else
    if(expr3){
      …
    }
    else{
      …
    }
```

- exprX should be different cases of the same test

Else - If

- grades revisited

```c
/*
 * test_grades2.c
 *
 *  Created on: Jan 20, 2020
 *      Author: johnsontimoj
 */
// example to show else if

#include <stdio.h>

int main(void){
    setbuf(stdout, NULL);  // disable buffering

    int score;

    //   get test score
    printf("Please enter test score: ");
    scanf("%i", &score);
```

```c
    // print grade
    if(score >= 90)
        printf("A\n");
    else if(score >= 80)
        printf("B\n");
    else if(score >= 70)
        printf("C\n");
    else if(score >= 60)
        printf("D\n");
    else
        printf("F\n");

    return 0;
} // end main
```

Else - If

- grades revisited

All tests are measures of the same expression *

```c
/*
 * test_grades2.c
 *
 *  Created on: Jan 20, 2020
 *      Author: johnsontimoj
 */
// example to show else if

#include <stdio.h>

int main(void){
    setbuf(stdout, NULL);  // disable buffering

    int score;

    //    get test score
    printf("Please enter test score: ");
    scanf("%i", &score);

    // convert score to grade range//
    score = score / 10;
```

```c
// print grade
if(score >= 90)
    printf("A\n");
else if(score >= 80)
    printf("B\n");
else if(score >= 70)
    printf("C\n");
else if(score >= 60)
    printf("D\n");
else
    printf("F\n");

    return 0;
} // end main
```

Final option is just an else
not required

* - while not required – you can get into logical trouble if you vary the test variable