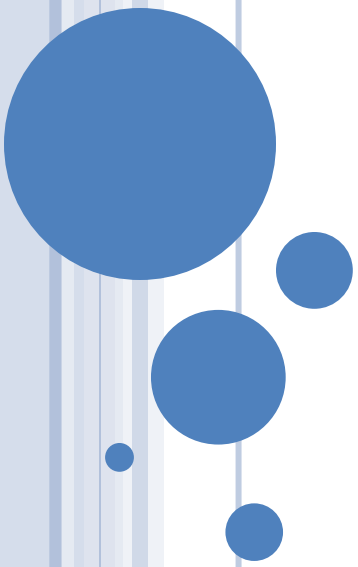


COMP 110 CONDITIONALS

Instructor: Prasun Dewan

Prerequisite

- Types Math

.

CONDITIONALS

printPassFailStatus(95)	Passed
printPassFailStatus(25)	Failed

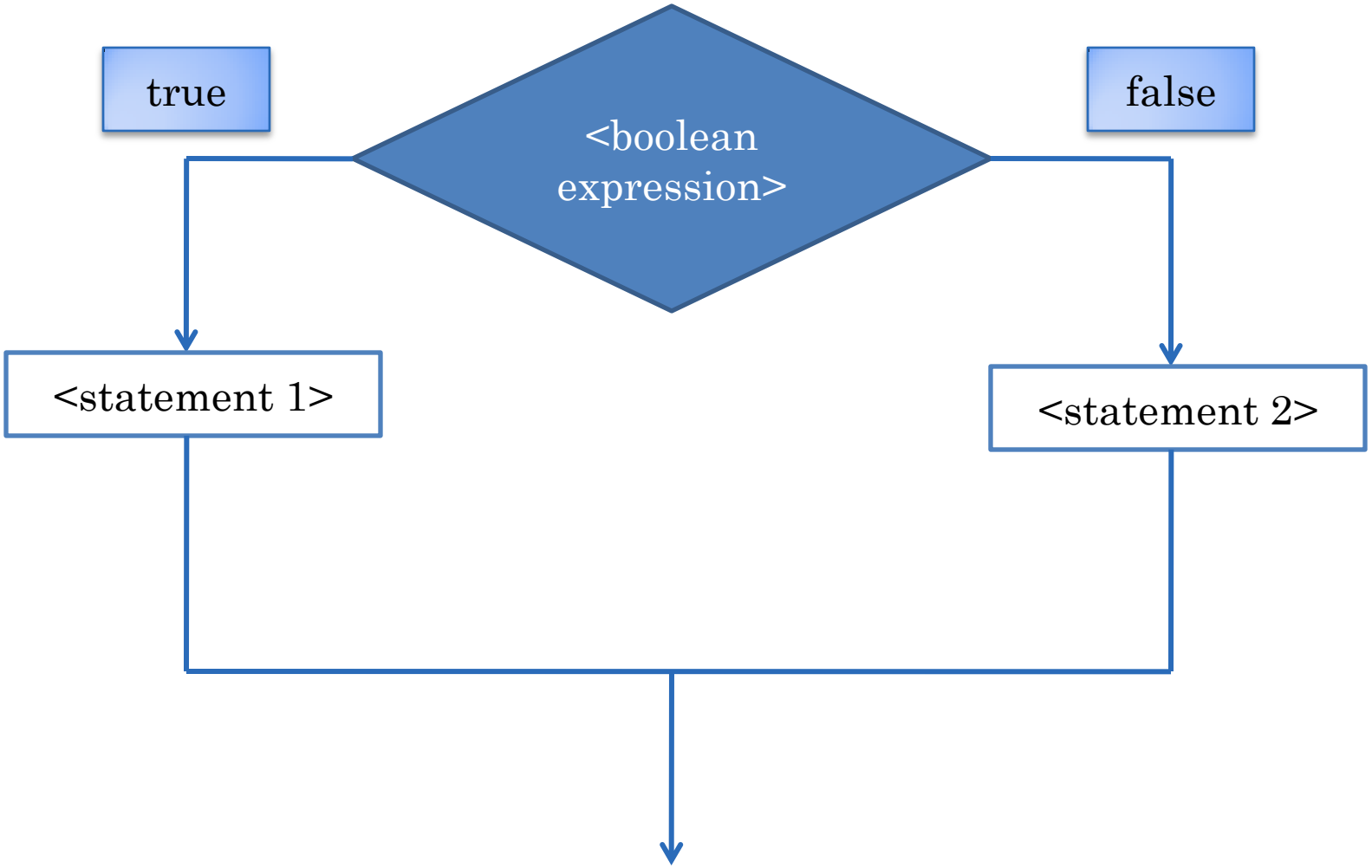
```
public  static void printPassFailStatus(int score) {
            if (score < PASS_CUTOFF)
                        System.out.println("FAILED");
            else
                        System.out.println("PASSED");

}
```

If-Else Statement

```
if ( <boolean expression> )
        <statement 1>;
else
        <statement 2>;
```

If-Else Statement



Compound Statement

```
public void fancyPrintGrade(int score)
  {
        if (score < PASS_CUTOFF)
            {
                System.out.println("***************");
                System.out.println("FAILED");
                System.out.println("***************");
            }
        else
            {
                System.out.println("***************");
                System.out.println("PASSED");
                System.out.println("Congratulations!");
                System.out.println("***************");
            }
}
```

Compound Statement – { } Convention

```
public void fancyPrintGrade(int score)
  {
        if (score < PASS_CUTOFF)  {
              System.out.println("***************");
              System.out.println("FAILED");
              System.out.println("***************");
         } else {
              System.out.println("***************");
              System.out.println("PASSED");
              System.out.println("Congratulations!");
              System.out.println("***************");
        }
}
```

Avoiding Code Duplication in If-Else (Edit)

```
public void fancyPrintGrade(int score)
  {
        if (score < PASS_CUTOFF)
            {
                System.out.println("***************");
                System.out.println("FAILED");
                System.out.println("***************");
            }
        else
            {
                System.out.println("***************");
                System.out.println("PASSED");
                System.out.println("Congratulations!");
                System.out.println("***************");
            }
}
```

Avoiding Code Duplication in If-Else

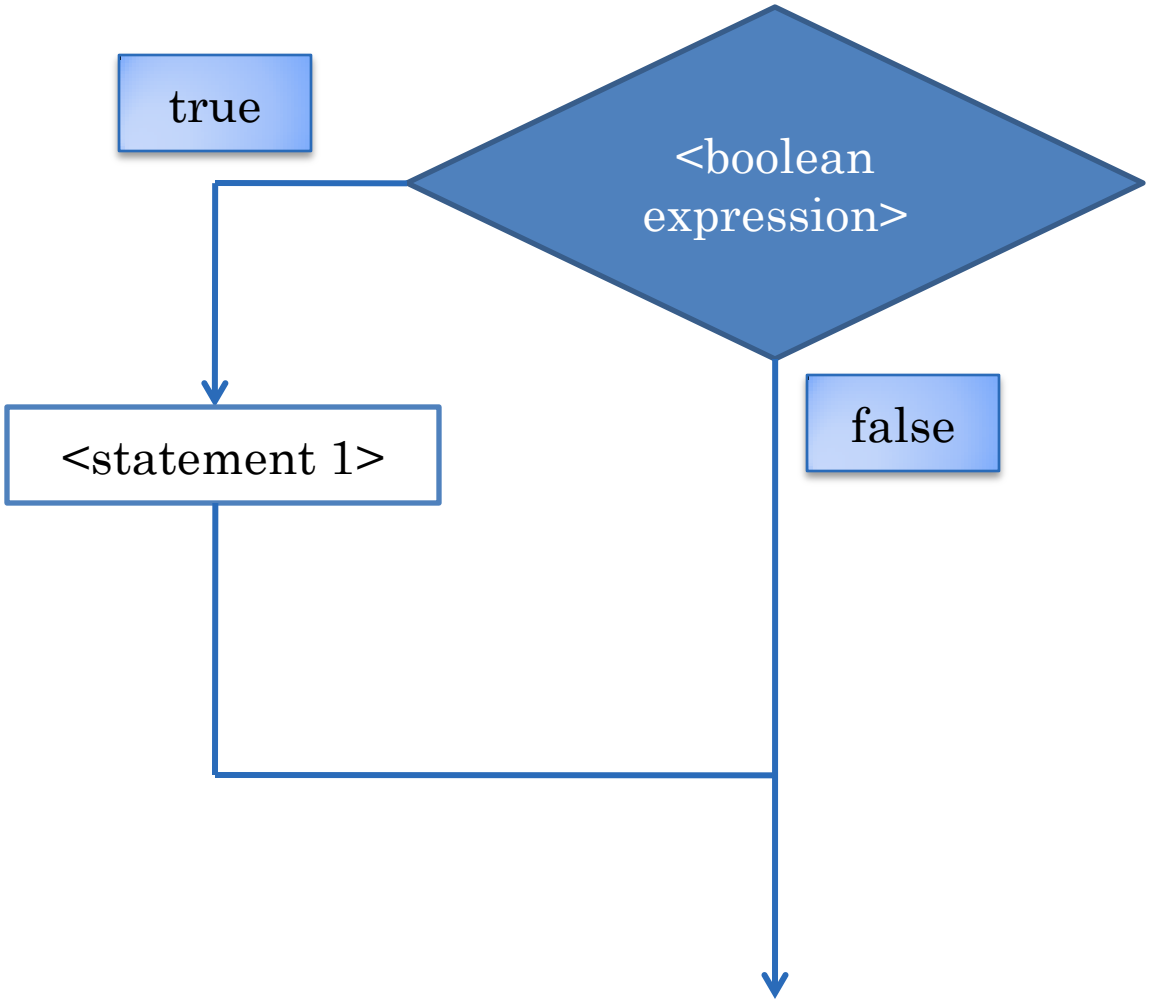
```
public void fancyPrintGrade(int score)    {
        System.out.println("***************");
        if (score < PASS_CUTOFF)
                System.out.println("FAILED");
        else {
                System.out.println("PASSED");
                System.out.println("Congratulations!");
         }
        System.out.println("***************");
}
```

If Statement

```
if (score == MAX_SCORE)
        System.out.println ("Perfect Score! Congratulations!");
```

```
if (<bool expr>)
        <statement>;
```

If Statement



Else-If

```
public static char toLetterGrade (int score)
{
    if (score >= A_CUTOFF)
        return 'A';
    else if (score >= B_CUTOFF)
        return 'B';
    else if (score >= C_CUTOFF)
        return 'C';
    else if (score >= D_CUTOFF)
        return 'D';
    else
        return 'F';
}
```

Nested If-Else

```
if (score >= A_CUTOFF)
    return 'A';
else
    if (score >= B_CUTOFF)
        return 'B';
    else
        if (score >= C_CUTOFF)
            return 'C';
        else
            if (score >= D_CUTOFF)
                return 'D';
            else
                return 'F';
```

Nested If-Else