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Lab 01 Programming Standards

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1. Method & Variable Names

All method and variables will adhere to the following conventions:

1.1 Capitalization

Pascal casing will be used for all variable and method names. The first letter of each word will be capitalized to ease readability. The only exception to the rule are class methods using “get” and “set” as prefixes.

1.2 Naming Conventions

All methods will be named with the intent to be as clear and intent revealing as possible. Variables will be named to be self-descriptive, and single character names will be avoided except in the case of for loop variables.

1.3 For Loop Variables

Methods that are instantiated upon entering a for loop will be named with a single character starting with the character i. Nested for loops will use letters following i, for example:

```
for(int i = 0; i < arrayMax; i++){  
    for(int j = 0; j < arrayMax; j++){  
        //code goes here  
    }  
}
```

2. Method Structure

2.1 Bracket Placement

The opening bracket of a method will be in-line of the method header; however, the closing bracket will fall on its own line. This will reduce clutter within the code of a method while being easy to read where a method ends.

```
private exampleMethod() {  
  
    //code goes here  
}
```

2.2 Spacing

The line following a method or statement header will contain a space. The only exception to this is rule are nested for loops. A nested for loop will fall on the line immediately following its parent loop. A space will not follow a method's closing bracket.

```
for(int i = 0; i < arrayMax; i++){  
    for(int j = 0; j < arrayMax; j++){  
        //code goes here  
    }  
}  
  
if(exampleText.equals("Text"){  
    //code goes here  
}
```

All variable declarations or blocks of variable declarations will be preceded and followed by a space. All variable declaration blocks will be broken up by a space if greater than 5 lines long.

3. Comments

3.1 Comment Placement

All Comments will be placed either on a closing bracket of a method or Structure, or on their own separate line. Comments will be indented from the code they precede and follow.

3.2 Comment Type

All comments will use `//`. This project is not large enough to warrant the use of `/*` comment blocks.

4. Output

4.1 Grammar

All prompts given to the user will adhere to proper grammar. Full sentences will be used with proper capitalization.

4.2 Results

The result given to the user once the calculation is complete will adhere to a specific format. First the field number will be displayed on it's own line followed by a pound sign and the field number. The mine field will follow the field number with each line in the mine field given its own line of output. A space will then follow once the minefield is done printing, and the process will repeat.

An example output:

Field #1:

*100

2210

1*10

1110

Field #2:

**100

33200

1*100