|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| LEARNING PROFILE FOR Interest3 | | | | | |
| *Name* | *:* | *Tyler Lucas* | *Due Date* | *:* | *N/A* |
| *Student ID* | *:* | *3305203* | *Submission Date* | *:* | *N/A* |

# Problem Statement:

Textbook example program.

# Description of the Code:

Computes interest earned on an investment over time. Initial amount and interest rate input by the user.

# Errors and Warnings:

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Errors / Warnings** | **Details** | **How I solved them** |
| 1 | Exception in thread "main" java.util.UnknownFormatConversionException: Conversion = 't'  …  at Interest3.main(Interest3.java:92) | Something in my printf format string was wrong. I had tried to use the printf format specifier “%t”, not knowing that it did not exist. | Separated format string into independent printf statement on multiple lines to pinpoint which section was causing the error (see Fig 1). Changed “%t” to “\t”. |
|  |  |  |  |

# Sample Input and Output:

Starting investment value/principal: $100

The starting principal has been set to $100.00

Annual interest rate [%]: 10

The annual interest rate has been set to 10.00%

Accrual time, in years: 5

The accrual time has been set to 5 years

Number of compound periods per year: 12

The number of compound periods per year has been set to 12

The interest earned on $100.00 initial investment with 10.0% annual interest over 5 years with 12 compounding periods per year is:

\* $10.47 in the 1st year ($110.47 total),

\* $11.57 in the 2nd year ($122.04 total),

\* $12.78 in the 3rd year ($134.82 total),

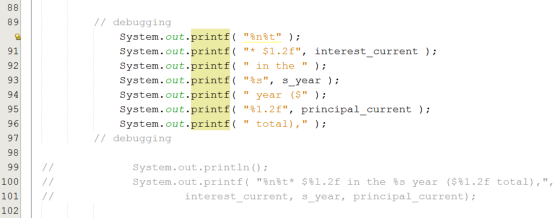
\* $14.12 in the 4th year ($148.94 total), and

\* $15.60 in the 5th year ($164.53 total),

for a final investment value of $164.53 with $64.53 interest earned after 5 years.

# Discussion:

I made, printed, and taped a Java printf() method cheat sheet to my desk so that I make fewer formatting mistakes in the future. Here is the debugging code block I wrote to help me pinpoint what the error was:



Figure