# COMMENTS FOR ASSIGNMENT - I, PDS LAB, AUTUMN 2015

**General Comment:**

1. Linux assignment: Read the problem carefully. The first few commands for directory creation and file copying are just for your convenience. You should submit the soutions to the three graded problems only.
2. Please use the clarification period to sort out any confusion or doubts related to the assignments.
3. Try to give a brief sketch of your algorithm (logic) in comments.

**CS1501:**

1. Linux assignment, problem 3: Unncessary use of two temporary files and **rm** command, and more than three lines of code.
2. C assignment, problem 1: Good observation on the relationship between fibonacci ratios. Do we need two variables for storing intermediate ratios? Do we need to compute ratio beyond a particular term?
3. C assignment, problem 2: Good solution with proper care for floating point precision. Can also be implemented using only 2 floating point multiplications.

**CS1502:**

1. Linux assignment, problem 1: Use of **wc** instead of **wc -l**.
2. Linux assignment, problem 3: Unnecessary use of **echo " "**.
3. C assignment, problem 1: Not submitted.
4. C assignment, problem 2: Not submitted.

**CS1503:**

1. Linux assignment, problem 2: Incorrect solution (file name not given).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Won't give correct output for large value of n (in general n > 45). Doesn't handle boundary case of n<=1. Unnecessary variable(s).
4. C assignment, problem 2: Not submitted.

**CS1504:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Incorrect solution (incorrect filename).
3. C assignment, problem 1: Unnecessary use of an array. As expected, gives segmentation fault for n > 99. Won't give correct output for large value of n (in general n > 45). Unused variable(s).
4. C assignment, problem 2: Gives floating point exception due to divide by zero error (slope of tan90 not handled). This approach will not work for all points.

**CS1505:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Fails for n <=1 (infinite loop, value of n is never updated). Won't give correct output for large value of n (in general n > 185). Unnecessary variable(s).
4. C assignment, problem 2: Not the best way to solve this problem.

**CS1506:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unncessary use of **echo** command, and more than three lines of code. The two **cat** commands can be replaced by a single **cat** command (see **cat** man page).
3. C assignment, problem 1: User restricted from entering n >= 187. Unnecessary calculation of ratio (or fibonacci value) in the second loop.
4. C assignment, problem 2: Not the best way to solve this problem.

**CS1507:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Good observation on the relationship between fibonacci ratios. Do we need n and i as float variables? Do we need to compute ratio beyond a particular term?
4. C assignment, problem 2: Incorrect solution. Bad user input interface. Clumsy implementation.

**CS1508:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Good observation on the relationship between fibonacci ratios. Do we need to compute ratio beyond a particular term? Check your output. It does not follow from the fibonacci sequence given in the problem.
4. C assignment, problem 2: Incorrect solution. Bad user input interface. Clumsy implementation.

**CS1509:**

1. Linux assignment, problem 2: Grading on the basis of second solution. Do not submit more than one solution (unless asked for), or marks will be deducted.
2. Linux assignment, problem 3: Incorrect output (extra newline after heading). Unnecessary use of **sed** and **rm** commands, and more than three lines of code. Try to adhere with the shell script commenting syntax.
3. C assignment, problem 1: This is not a general solution. Won't give correct output for very large value of n. Do we need i as long double variable?
4. C assignment, problem 2: Do we need a function for curl computation?

**CS1510:**

1. Linux assignment, problem 1: Unnecessary use of **cat** command.
2. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
3. C assignment, problem 1: Won't give correct output for large value of n (in general n > 47).
4. C assignment, problem 2: Could have used area vector or curl to reduce the no. of comparisons.

**CS1511:**

1. Linux assignment, problem 3: Incorrect output (“ ” appearing in the heading).
2. C assignment, problem 1: Won't give correct output for large value of n (in general n > 92).
3. C assignment, problem 2: Doesn't work for floating point values. Doesn't work for slope=tan90.

**CS1513:**

1. Linux assignment, problem 2: Unnecessary use of **cat** and **wc -l** commands. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Incorrect output (extra newline after heading). Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Won't give correct output for large value of n (in general n > 93). Does not handle n <=1.
4. C assignment, problem 2: Doesn't work for floating point values.

**CS1514:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l** command. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Incorrect solution (absence of **cat** or **cp** command).
3. C assignment, problem 1: Good observation on the relationship between fibonacci ratios. Do we even need to compute ratio beyond a particular term? Check your output. It does not follow from the fibonacci sequence given in the problem.
4. C assignment, problem 2: Doesn't work for floating point values. And why do you need an array? What about n > 100?

**CS1515:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Good attempt at exploting the relation between golden ratio and fibonacci sequence. But, computation of fibonacci number beyond n > 45 will not give correct result. Instead you could have computed the fibonacci ratio directly using the golden ratio. Check your output. It does not follow from the fibonacci sequence given in the problem.
4. C assignment, problem 2: Doesn't work for floating point values.

**CS1516:**

1. Linux assignment, problem 2: Incorrect solution (incorrect filename).
2. Linux assignment, problem 3: Incorrect solution (incorrect filename).
3. C assignment, problem 1: Won't give correct output for large value of n (in general n > 185). Do we need n and i as float variables?
4. C assignment, problem 2: Doesn't work for floating point values.

**CS1517:**

1. Linux assignment, problem 2: Incorrect solution (used regular expression (pattern) 'president' instead of 'President').
2. Linux assignment, problem 3: Incorrect output ($ \n in heading, no newline after the heading). More than three lines of code, and the **rm** command causes file not found error.
3. C assignment, problem 1: Won't give correct output for large value of n (in general n > 47).
4. C assignment, problem 2: Gives floating point exception due to divide by zero error (slope of tan90 not handled). Doesn't work for floating point values. c source file should have a .c extension.

**CS1518:**

1. Linux assignment, problem 2: Incorrect solution (the problem asks for no. of lines, not no. of occurences). Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. C assignment, problem 1: Won't give correct output for large value of n (in general n > 47). Does use of matrices solve any purpose?
3. C assignment, problem 2: Doesn't work for floating point values.

**CS1519:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. C assignment, problem 1: This ain't a general solution. Won't give correct output for large value of n (in general n > 47). Uses recursive implementation of fibonacci that hangs for n>50 on a general system.
3. C assignment, problem 2: Doesn't work for floating point values. Whats the use of slope?

**CS1520:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. Linux assignment, problem 3: Unnecessary use of **rm** command, and more than three lines of code.
3. C assignment, problem 1: Good observation on the relationship between fibonacci ratios. Do we need to compute r=f_3/f_2? Do we even need to compute ratio beyond a particular term?
4. C assignment, problem 2: Do we need px,py,qx,qy?

**CS1522:**

1. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
2. C assignment, problem 1: Won't give correct output for large value of n (in general n > 93). Does use of matrices solve any purpose? Does not handle n <=1.
3. C assignment, problem 2: Doesn't work for floating point values.

**CS1523:**

1. Linux assignment, problem 1: Unnecessary use of **cat** command.
2. Linux assignment, problem 2: Unnecessary use of **wc -l**. **grep** offers option to print the no. of occurences (use -c with **grep**).
3. Linux assignment, problem 3: Incorrect output (extra newline after heading). Unnecessary use of **cat** and **rm** commands, and more than three lines of code.
4. C assignment, problem 1: Won't give correct output for large value of n (in general n > 45). Doesn't handle boundary case of n<=1.
5. C assignment, problem 2: Doesn't work for floating point values. Do we need direction function?

**CS1524:**

1. Linux assignment, problem 3: **rm** command was not required. Could have used **mv** instead of the **cat** + **rm** commands in line 2 and 3.
2. C assignment, problem 1: Good observation on the relationship between fibonacci ratios, and the convergence of this ratio to golden ratio.
3. C assignment, problem 2: Do we need vec_1x,vec_1y,vec_2x,vec_2y?

**CS1525:**

1. Linux assignment, problem 3: Incorrect output (no newline after heading). Unnecessary use of **echo**, **cat** and **rm** commands, and more than three lines of code. Invalid file name as argument to **cat** command at line 3 (blank instead of blank.txt).
2. C assignment, problem 1: Won't give correct output for large value of n (in general n > 93).
3. C assignment, problem 2: Incorrect solution (curl computation is wrong). Won't work for floating point values.