

Extra Credit Homework

cs3157 – Advanced Programming
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Due at final.

1. Here is a sample perl program:

```
#!/usr/bin/perl

$count = 1;
$correct = 0;

print "Welcome to the Addition Quiz. \n";

while ($count <= 10) {
    $one = int(rand(100) - 50);
    $two = int(rand(100) - 50);
    print "Question $count: What is $one + $two?\n";
    print "    Answer: ";
    $answer = <STDIN>;
    if ($answer == $one + $two) {
        $correct += 1;
        print "Very good, that was the answer.\n";
    } else {
        print "Sorry. The right answer was: ",
            ($one + $two) , "\n";
    }
    $count += 1;
}

print "End of quiz. Thanks for your interest.\n";

print "Your score is: $correct out of ",
    ($count - 1), "\n";
```

- a. Explain the program line by line.

- b. Implement an equivalent program in php.

2. What would you probably first do before using Perl's "seek" function?

3. How is compiling and running a perl script different that compiling and running a c program.

4. . If you use the statement: "\$cat, @dogs, \$gerbil) = (1, 3, 5, 7, 9, 11);" what will end up in each of the variables: \$cat, @dogs, and \$gerbil?

5. What might be potentially dangerous about the following C++ fragment? (Hint: virtual methods.)

```
class Xstream {
public:
Xstream() { }
~Xstream() { }
virtual int getChar() =0;
};

class ifXstream : public Xstream {
protected:
int fileDesc;
public:
ifXstream(const char * fileName);
~ifXstream();
int getChar();
};

ifXstream::ifXstream(const char * fn) {
fileDesc = open(fn, O_RDONLY);
}

ifXstream::~ifXstream() {
close(fileDesc);
}

int ifXstream::getChar() {
// getChar on files
// implemented here
}
```

6. PHP has many useful built in methods, use the web to find the information, but you need to word it in your own words. Please give a brief explanation of the following:

a. htmlspecialchars

b. chop

c. count_chars

d. ucfirst

e. implode

f. parse_str