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Lab 11 - First PERL Script - ITE315/Scripting

```perl
#!/usr/bin/perl
#
# File: lab11.part01.compound.p1
# Author: William Kelley
# Purpose: Demo Perl by implementing a compound interest calculator

use 5.010;
use warnings;

my $outfile   = 'interest.txt';
my $nestEgg   = 10000;
my $year      = 2008;
my $duration  = 10;
my $apr       = 9.5;

my $reportFH = openReport( $outfile ) ;
printHeaders(   $reportFH );
interestReport( $reportFH, $nestEgg, $year, $duration, $apr );
reportFooter(   $reportFH, $nestEgg, $duration, $apr );

sub openReport {
  my ( $outfile ) = @_;
  open my $report, '>', $outfile or die "Can't open '$outfile': $!";
  return $report;
}

sub interestReport {
# Get our parameters. Note that these variables won't clobber the
# global variables with the same name .
  my ( $reportFH, $nestEgg, $year, $duration, $apr ) = @_;

# Calculate interest for each year.
  for my $i ( 1..$duration ) {
    my $interest = int(($apr/100) * $nestEgg * 100) / 100;
    my $line = join "\t", $year + $i, $nestEgg, $interest, $nestEgg + $interest;

    say $line
    say $reportFH $line;
    $nestEgg += $interest;
  }
}

sub printHeaders {
my ( $reportFH ) = @_;

# Print the headers for our report.
  say "Year \tBalance \tInterest \tNew balance";
  say $reportFH "Year \tBalance \tInterest \tNew balance";
}

sub reportFooter {
```

```perl
  my ( $reportFH, $nestEgg, $duration ,$apr ) = @_;

  say "\nOur original assumptions: ";
  say "Nest egg: $nestEgg";

  say "Number of years: $duration";
  say "Interest rate: $apr";

  say $reportFH "\nOur original assumptions: ";
  say $reportFH "Nest egg: $nestEgg";
  say $reportFH "Number of years: $duration";
  say $reportFH "Interest rate: $apr";
}
```

Year	Balance	Interest	New balance
2009	10000	950	10950
2010	10950	1040.25	11990.25
2011	11990.25	1139.07	13129.32
2012	13129.32	1247.28	14376.6
2013	14376.6	1365.77	15742.37
2014	15742.37	1495.52	17237.89
2015	17237.89	1637.59	18875.48
2016	18875.48	1793.17	20668.65
2017	20668.65	1963.52	22632.17
2018	22632.17	2150.05	24782.22

Our original assumptions:
Nest egg: 10000
Number of years: 10
Interest rate: 9.5