Experiment 5:

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Write a Perl program to multiply two matrices.

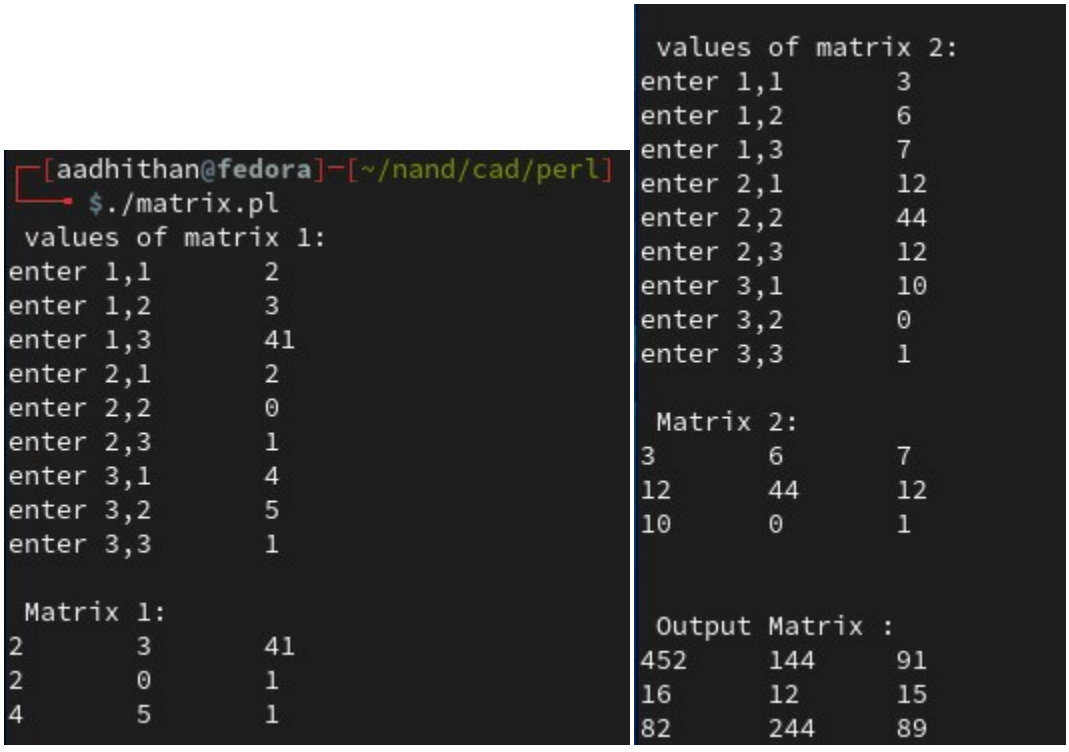
Code:

```
#!/usr/bin/perl

my @mat1=([0,0,0],[0,0,0],[0,0,0]);
my @mat2=([0,0,0],[0,0,0],[0,0,0]);
my @mat3=([0,0,0],[0,0,0],[0,0,0]);

print " values of matrix 1: \n";
print "enter 1,1 \t";
chomp($mat1[0][0] = <STDIN>);
print "enter 1,2 \t";
chomp($mat1[0][1] = <STDIN>);
print "enter 1,3 \t";
chomp($mat1[0][2] = <STDIN>);

print "enter 2,1 \t";
chomp($mat1[1][0] = <STDIN>);
print "enter 2,2 \t";
chomp($mat1[1][1] = <STDIN>);
print "enter 2,3 \t";
chomp($mat1[1][2] = <STDIN>);

print "enter 3,1 \t";
chomp($mat1[2][0] = <STDIN>);
print "enter 3,2 \t";
chomp($mat1[2][1] = <STDIN>);
print "enter 3,3 \t";
chomp($mat1[2][2] = <STDIN>);

print " \n Matrix 1: \n";;
```

```
for (my $i = 0; $i <= $#mat1; $i++){
    for (my $m = 0; $m <= $#mat1; $m++){
        print $mat1[$i][$m], "\t";
    }
    print "\n";
}


print "\n values of matrix 2: \n";
print "enter 1,1 \t";
chomp($mat2[0][0] = <STDIN>);
print "enter 1,2 \t";
chomp($mat2[0][1] = <STDIN>);
print "enter 1,3 \t";
chomp($mat2[0][2] = <STDIN>);

print "enter 2,1 \t";
chomp($mat2[1][0] = <STDIN>);
print "enter 2,2 \t";
chomp($mat2[1][1] = <STDIN>);
print "enter 2,3 \t";
chomp($mat2[1][2] = <STDIN>);

print "enter 3,1 \t";
chomp($mat2[2][0] = <STDIN>);
print "enter 3,2 \t";
chomp($mat2[2][1] = <STDIN>);
print "enter 3,3 \t";
chomp($mat2[2][2] = <STDIN>);

print "\n Matrix 2: \n";
for (my $i = 0; $i <= $#mat2; $i++){
    for (my $m = 0; $m <= $#mat2; $m++){
        print $mat2[$i][$m], "\t";
    }
    print "\n";
}

for (my $i = 0; $i <= $#mat1; $i++){
    for (my $m = 0; $m <= $#mat2; $m++){
```

```
        $a = $mat1[$i][1]*$mat2[1][$m];
        $b = $mat1[$i][2]*$mat2[2][$m];
        $c = $mat1[$i][0]*$mat2[0][$m];
        $mat3[$i][$m] = $a + $b + $c;
        chomp($mat3[$i][$m]);
    }
}


print "\n\n Output Matrix : \n";
for (my $i = 0; $i <= $#mat3; $i++){
    for (my $m = 0; $m <= $#mat3; $m++){
        print $mat3[$i][$m], "\t";
    }
    print "\n";
}
```

Output:

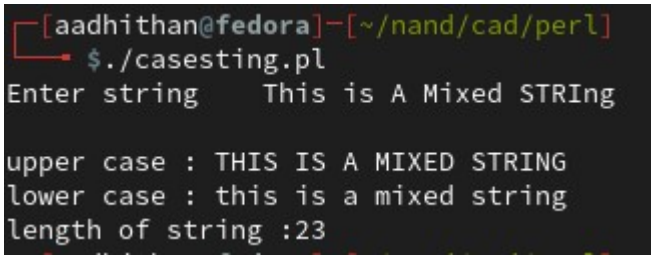


Write a Perl program with UC(), LC() and length() functions.

Code:

```
#!/usr/bin/perl

print "Enter string  \t";
$s = <STDIN>;

print("\nupper case : " ,uc($s));

print("lower case : " ,lc($s));

print("length of string :", length($s), "\n");
```

Output:



Write a Perl program with split and join functions.

Code:

```
#!/usr/bin/perl

print"Enter string 1 \t";
chomp($s1 = <STDIN>);
print"Enter string 2 \t";
chomp($s2 = <STDIN>);
print"Enter string 3 \t";
chomp($s3 = <STDIN>);

$string = join("-",$s1,$s2,$s3);
print("\n Joined String is : $string \n");

my @arr = split('-',$string);
print("\n Split String is : \n");
foreach my $i(@arr) { print "$i \n" };
```

Output:

```
┌─[aadhithan@fedora]─[~/nand/cad/perl]
└─► $./joinstring.pl
Enter string 1  this is aadhi
Enter string 2  roll no 21
Enter string 3  eced

 Joined String is : this is aadhi-roll no 21-eced

 Split String is :
this is aadhi
roll no 21
eced
```

Write a perl program to read all files of a text file.

Code:

```perl
#!/usr/bin/perl

my $filename = '/home/aadhithan/nand/cad/perl/textfile.txt';
open(FH, '<', $filename) or die $!;

while(<FH>){
   print $_;
}

close(FH);
```

Output:

```
┌─[aadhithan@fedora]─[~/nand/cad/perl]
└──╼ $./readfile.pl
The following are the graphical (non-control) characters defined by
ISO 8859-1 (1987).  Descriptions in words aren't all that helpful,
but they're the best we can do in text.  A graphics file illustrating
the character set should be available from the same archive as this
file.

Hex Description                Hex Description

20  SPACE
21  EXCLAMATION MARK           A1  INVERTED EXCLAMATION MARK
22  QUOTATION MARK             A2  CENT SIGN
23  NUMBER SIGN                A3  POUND SIGN
24  DOLLAR SIGN                A4  CURRENCY SIGN
25  PERCENT SIGN               A5  YEN SIGN
26  AMPERSAND                  A6  BROKEN BAR
27  APOSTROPHE                 A7  SECTION SIGN
28  LEFT PARENTHESIS           A8  DIAERESIS
29  RIGHT PARENTHESIS          A9  COPYRIGHT SIGN
2A  ASTERISK                   AA  FEMININE ORDINAL INDICATOR
```