U18CO018
Shubham Shekhaliya
Assignment-2 (ST)
<u>PHP</u>

Write a PHP program.
1-> To find average of N numbers.

```php
<?php
$a = array(1,5,67,89,54,34,23,76,34,221,12,90);
$average= ceil(array_sum($a)/count($a));
echo $average;
```
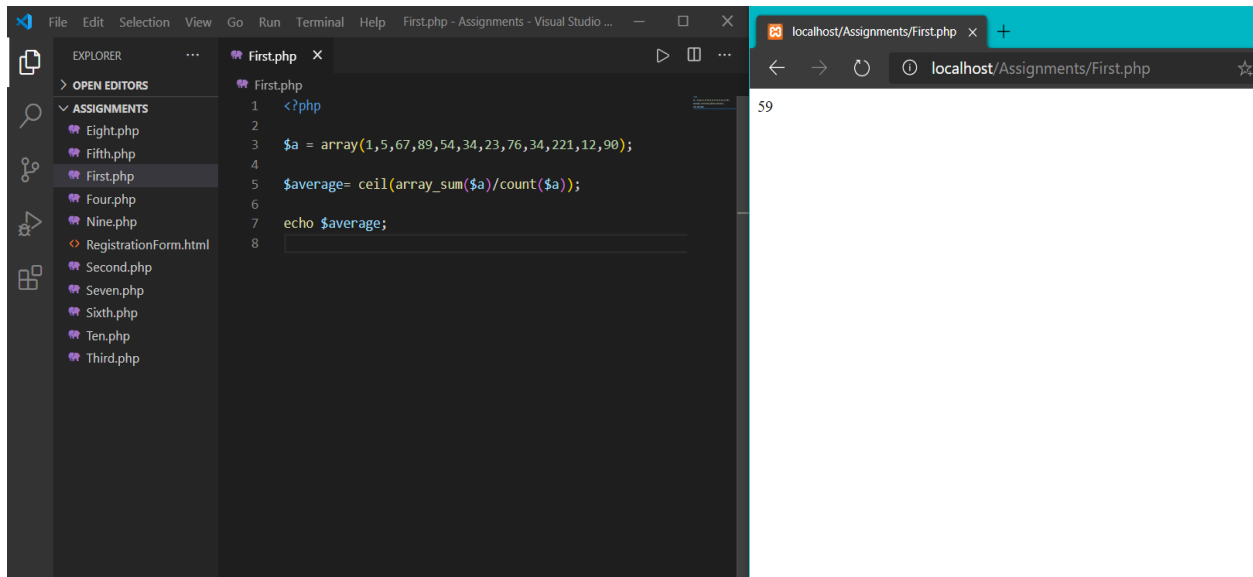

2-> Armstrong Number between 1 to 500.

```php
<?php
function digit($x){
    $cnt=0;
    $div=10;
    while($x>=1) {
        $x=$x/$div;
        $cnt++;
    }
    return $cnt;
}
function power($x,$n){
    $res=1;
    while($n!=0){
```

```php
        $res*=$x;
        $n--;
    }
    return $res;
}
$num=500;
echo "Amstrong numbers Till $num : ";
for($i=1;$i<=$num;$i++){
    $n=digit($i);
    $x=$i;
    $ans=0;
    while($x!=0){
        $tp=$x%10;
        $ans+=power($tp,$n);
        $x=$x/10;
    }
    if($ans==$i){
        echo "$i ";
    }
}
```


Amstrong numbers Till 500 : 1 2 3 4 5 6 7 8 9 153 370 371 407

3-> To print the Largest and Smallest number.

```php
<?php
$a = array(15,45,78,56,13,42,14,47,41);
sort($a);
$minn=$a[0];
$maxx=$a[count($a)-1];
echo "smallest number is $minn <br>";
echo "largest number is $maxx";
```
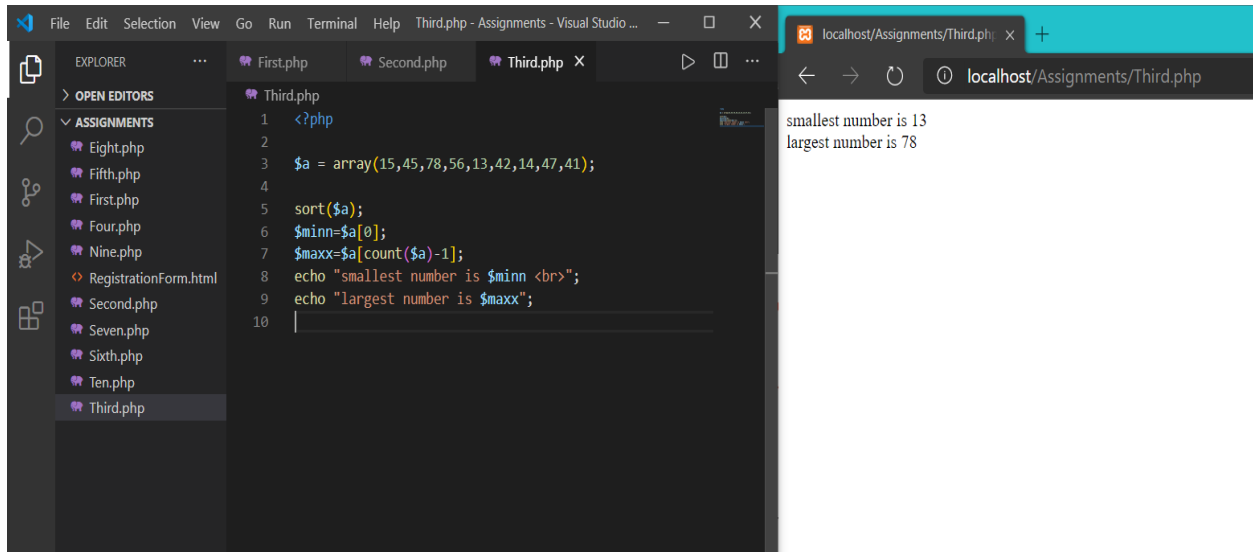

4-> To find exponential without using pow() method.

```php
<?php
function power($num,$pow){
    $res=1;
    while($pow>0){
        $res=$res*$num;
        $pow--;
    }
    return $res;
}
$num=5;
$pow=2;
echo power($num,$pow);
```
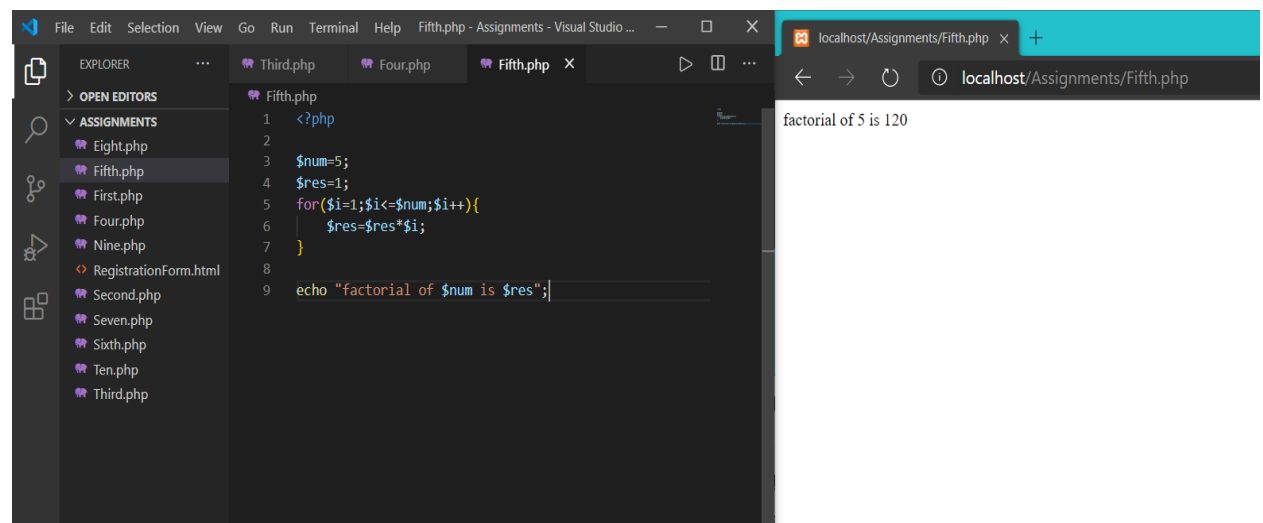
```php
<?php

function power($num,$pow){
    $res=1;
    while($pow>0){
        $res=$res*$num;
        $pow--;
    }
    return $res;
}

$num=5;
$pow=2;
echo power($num,$pow);
```
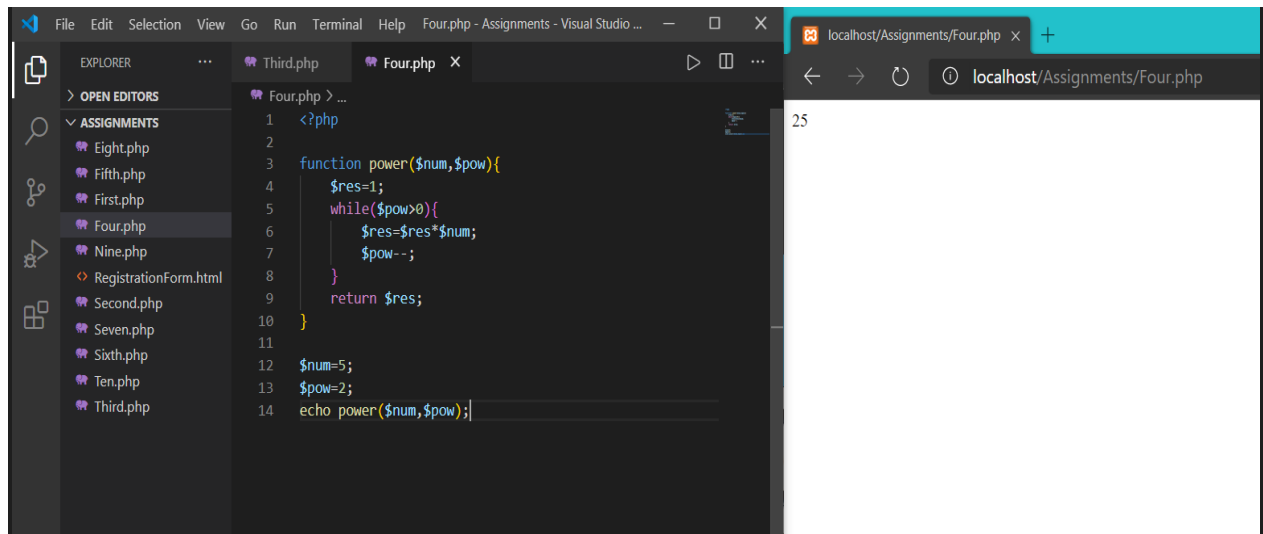
5-> To print Factorial of a Number

```php
<?php
$num=5;
$res=1;
for($i=1;$i<=$num;$i++){
    $res=$res*$i;
}
echo "factorial of $num is $res";
```

6-> To find first N Prime Numbers

```php
<?php
$num=10;
$cnt=2;
echo "First $num Prime numbers : ";
while($num>0){
    $flag=1;
    for($i=2;$i<$cnt;$i++){
        if($cnt%$i==0){
            $flag=0;
            break;
        }
    }
    if($flag==1){
        echo "$cnt ";
        $num--;
    }
    $cnt++;
}
```
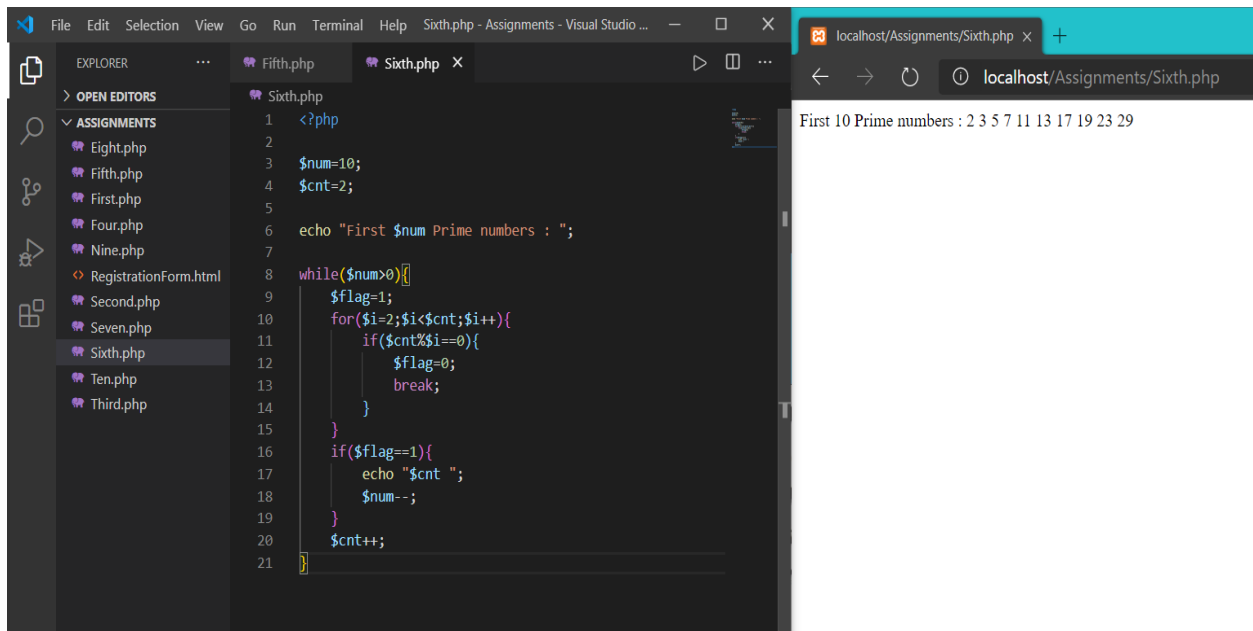
7-> To print the Fibonacci Series.

```php
<?php
$num=20;
$pre=1;
$now=1;
echo "$pre $now ";
for($i=3;$i<=$num;$i++){
    $temp=$pre+$now;
    echo "$temp ";
    $temp=$pre;
    $pre=$now;
    $now=$temp+$now;
}
```
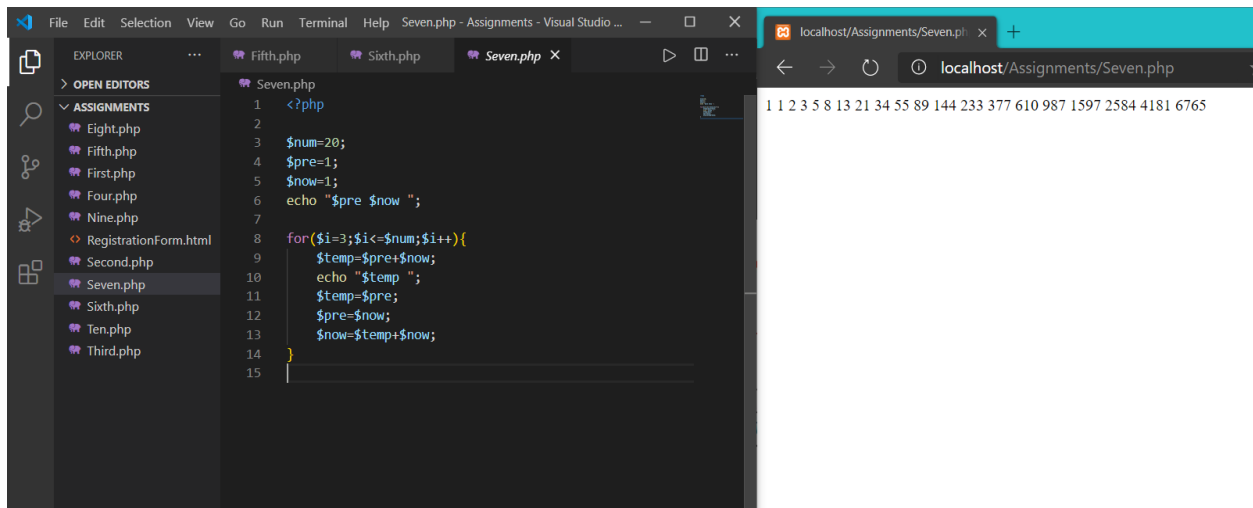

8-> To check whether a Number is a Palindrome.

```php
<?php
$num=1234321;
$rev=0;
$temp=$num;
while($temp>1){
    $rev=$rev*10+$temp%10;
    $temp=$temp/10;
}
echo "reverse of $num is $rev <br>";
if($rev==$num){
    echo "Yes, Number is Palindrome !!";
} else{
    echo "No, Number is not Palindrome !!";
}
```

reverse of 1234321 is 1234321
Yes, Number is Palindrome !!

```php
<?php

$num=1234321;
$rev=0;
$temp=$num;

while($temp>1){
    $rev=$rev*10+$temp%10;
    $temp=$temp/10;
}
echo "reverse of $num is $rev <br>";

if($rev==$num){
    echo "Yes, Number is Palindrome !!";
} else{
    echo "No, Number is not Palindrom !!";
}
```
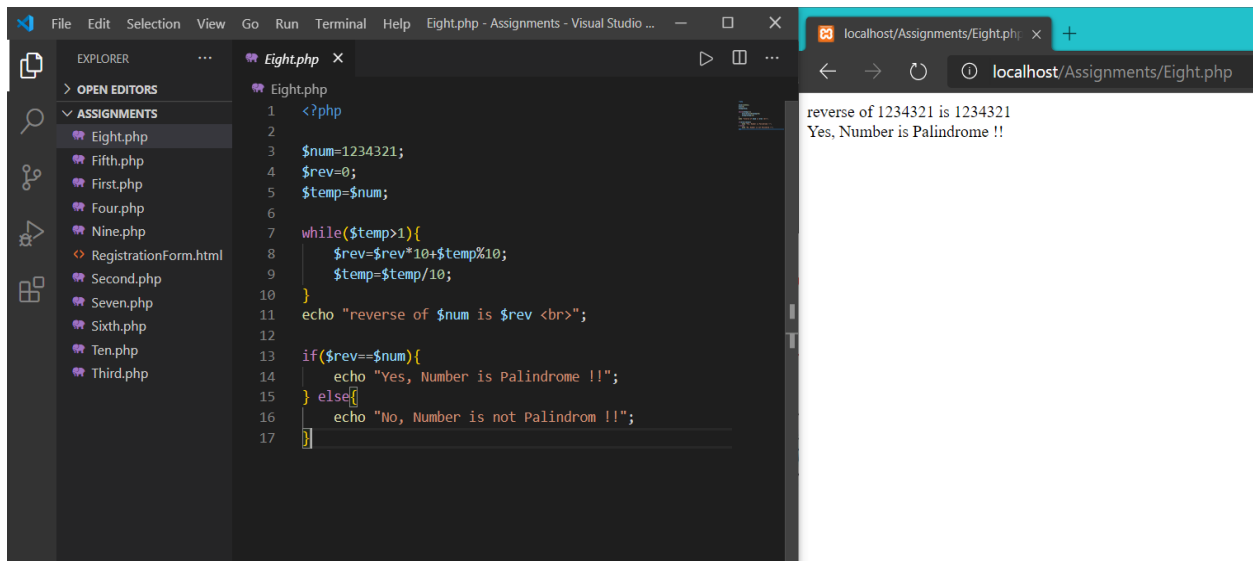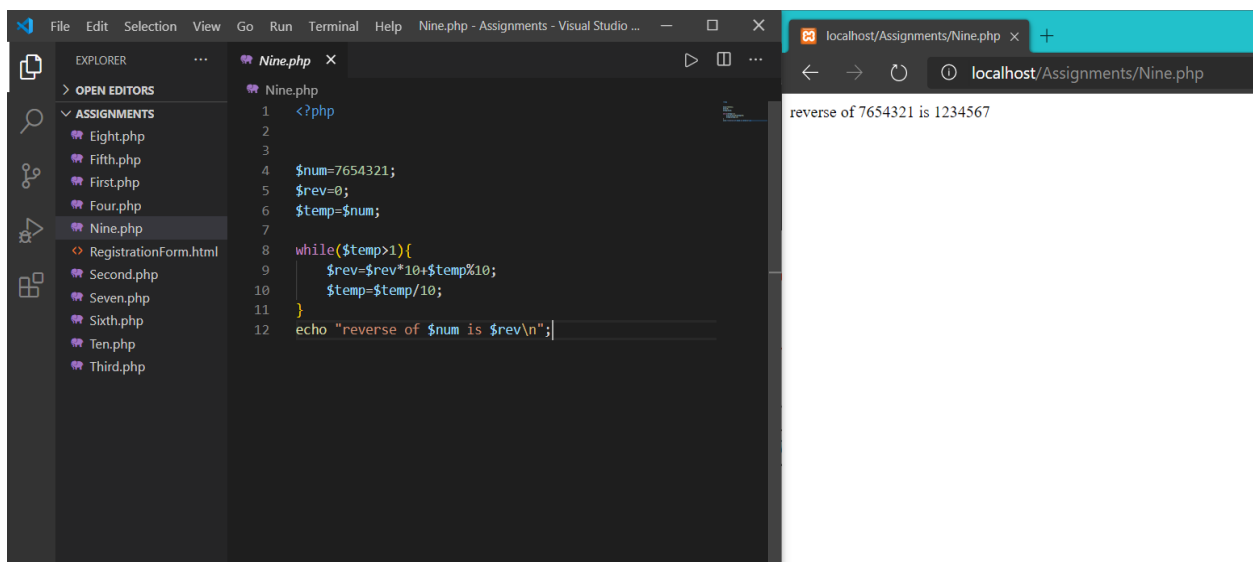
9-> To reverse given number.

```php
<?php
$num=7654321;
$rev=0;
$temp=$num;
while($temp>1){
    $rev=$rev*10+$temp%10;
    $temp=$temp/10;
}
echo "reverse of $num is $rev\n";
```


reverse of 7654321 is 1234567

```php
<?php


$num=7654321;
$rev=0;
$temp=$num;

while($temp>1){
    $rev=$rev*10+$temp%10;
    $temp=$temp/10;
}
echo "reverse of $num is $rev\n";
```

10-> To print number triangle.

```php
<?php
$num=6;
for($i=1;$i<=$num;$i++){
    for($j=1;$j<=$num-$i;$j++)
    echo "  ";
    for($j=1;$j<=$i;$j++)
    echo "$j";
    for($j=$i-1;$j>=1;$j--)
    echo "$j";
    echo "<br>";
}
```