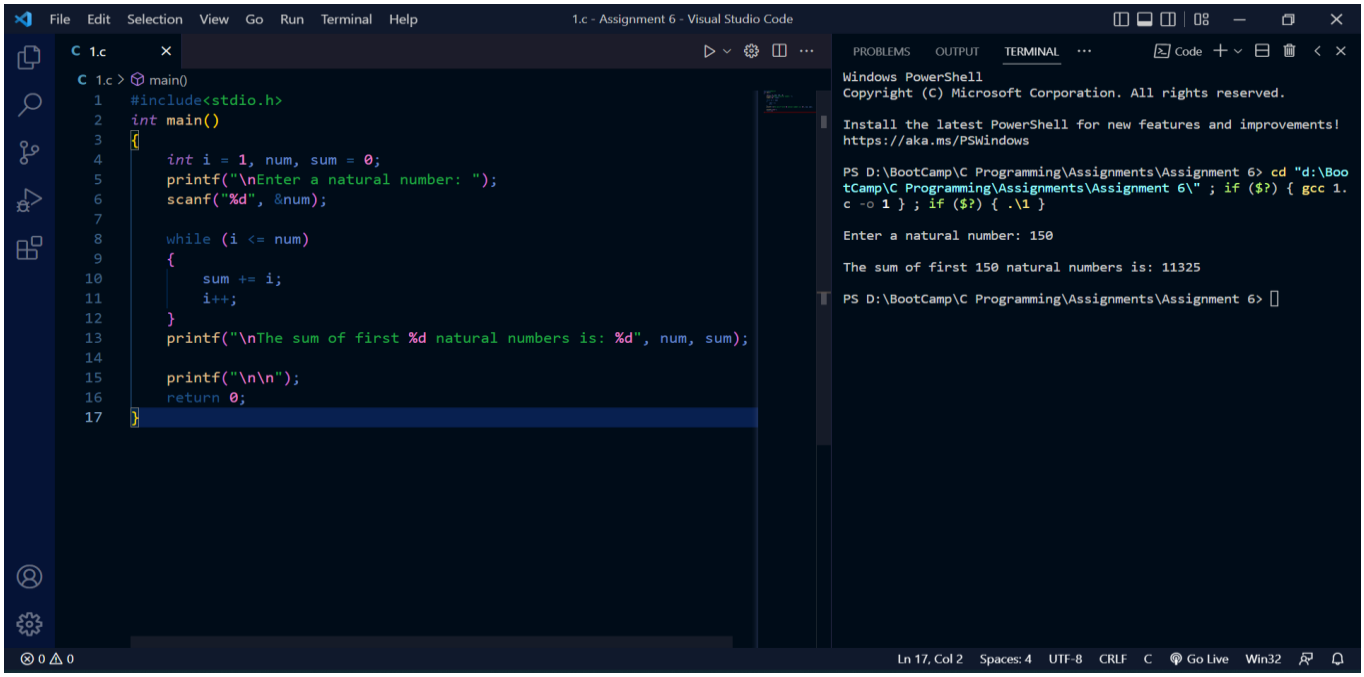
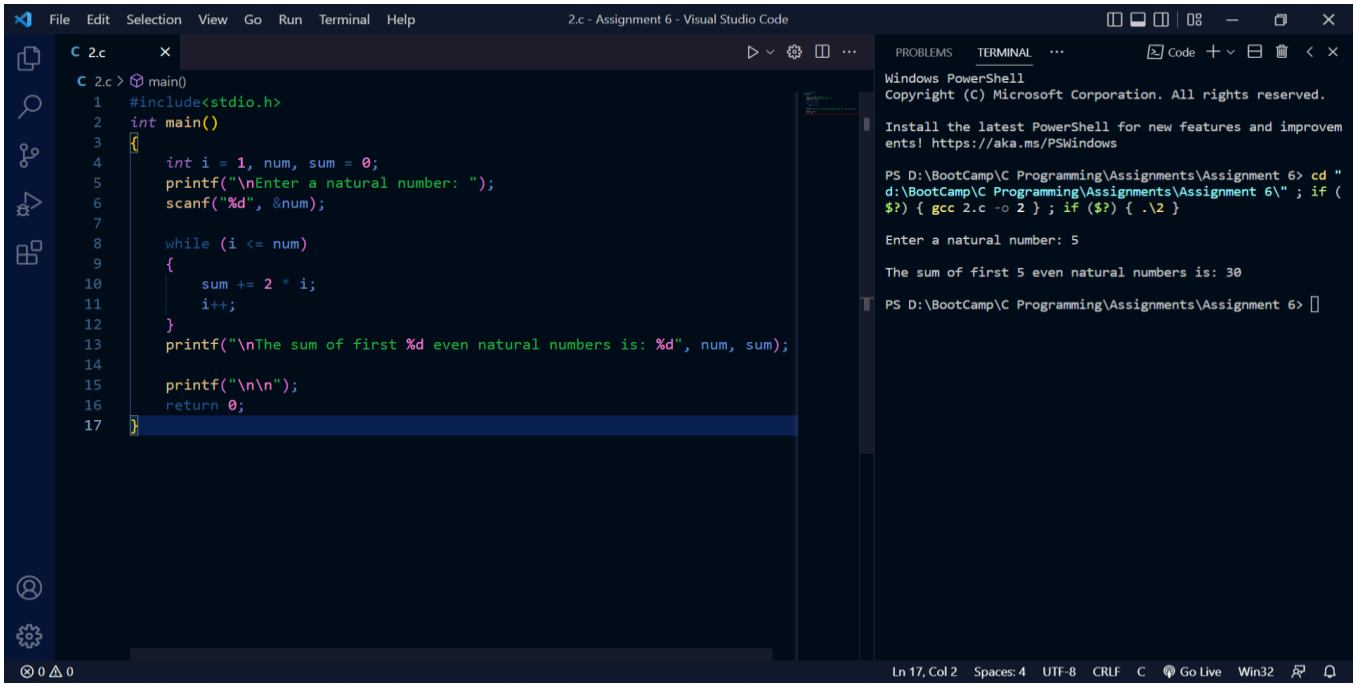
ASSIGNMENT – 06

(Use any loop to solve)

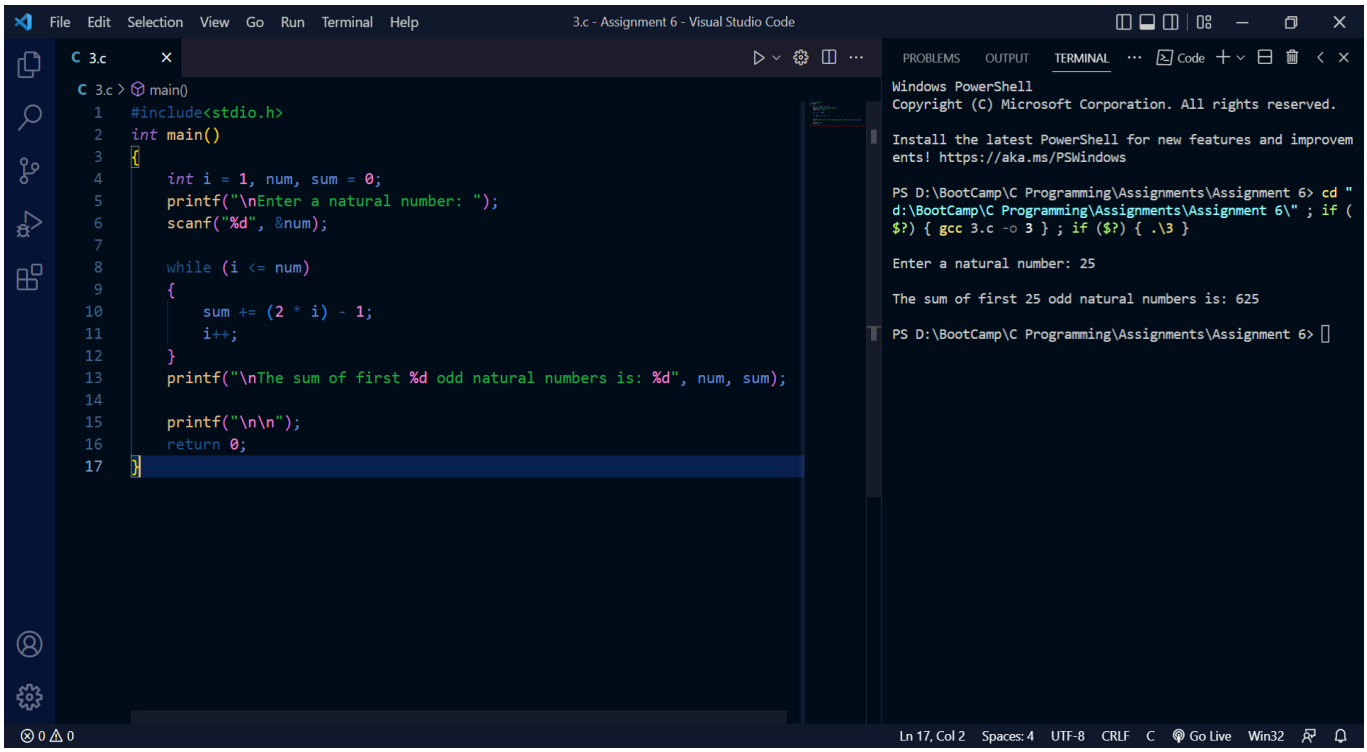
Q1.



Q2.



Q3.


File Edit Selection View Go Run Terminal Help
3.c - Assignment 6 - Visual Studio Code
3.c
3.c > main()
#include<stdio.h>
int main()
{
int i = 1, num, sum = 0;
printf("\nEnter a natural number: ");
scanf("%d", &num);
while (i <= num)
{
sum += (2 * i) - 1;
i++;
}
printf("\nThe sum of first %d odd natural numbers is: %d", num, sum);
printf("\n\n");
return 0;
}
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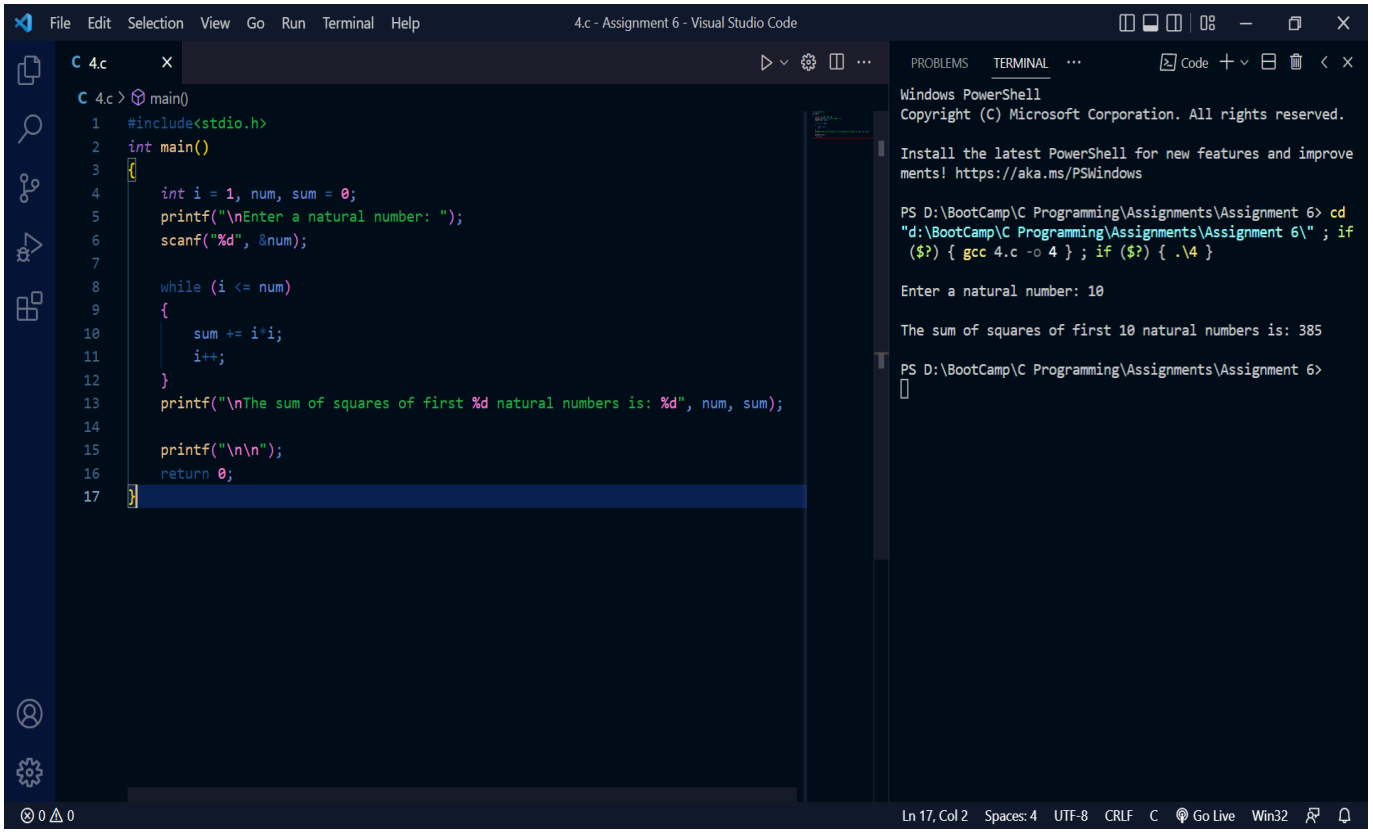
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 3.c -o 3 } ; if ($?) { .\3 }
Enter a natural number: 25
The sum of first 25 odd natural numbers is: 625
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
0 0
Ln 17, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q4.


File Edit Selection View Go Run Terminal Help
4.c - Assignment 6 - Visual Studio Code
4.c
4.c > main()
#include<stdio.h>
int main()
{
int i = 1, num, sum = 0;
printf("\nEnter a natural number: ");
scanf("%d", &num);
while (i <= num)
{
sum += i*i;
i++;
}
printf("\nThe sum of squares of first %d natural numbers is: %d", num, sum);
printf("\n\n");
return 0;
}
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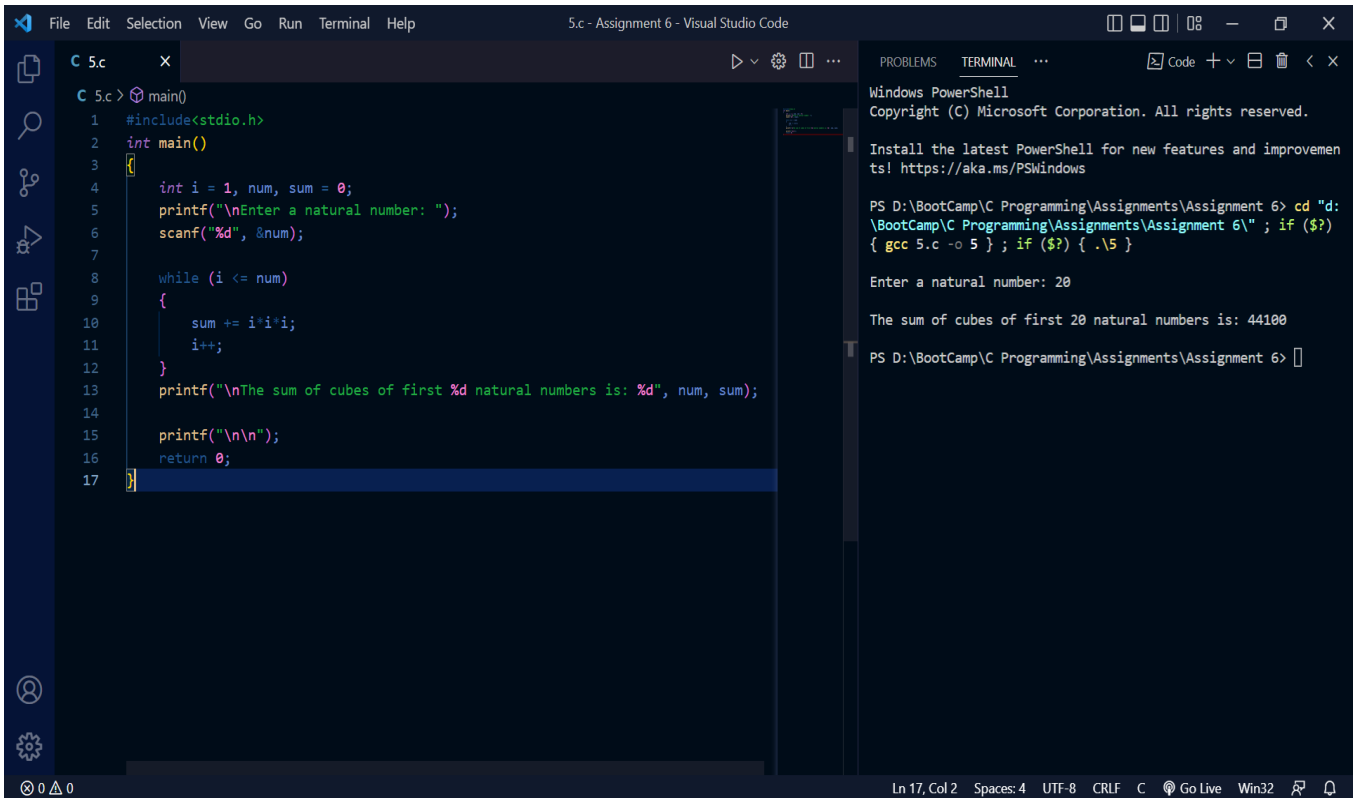
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 4.c -o 4 } ; if ($?) { .\4 }
Enter a natural number: 10
The sum of squares of first 10 natural numbers is: 385
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
0 0
Ln 17, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q5.


File Edit Selection View Go Run Terminal Help
5.c - Assignment 6 - Visual Studio Code
5.c
5.c > main()
#include<stdio.h>
int main()
{
int i = 1, num, sum = 0;
printf("\nEnter a natural number: ");
scanf("%d", &num);
while (i <= num)
{
sum += i*i*i;
i++;
}
printf("\nThe sum of cubes of first %d natural numbers is: %d", num, sum);
printf("\n\n");
return 0;
}
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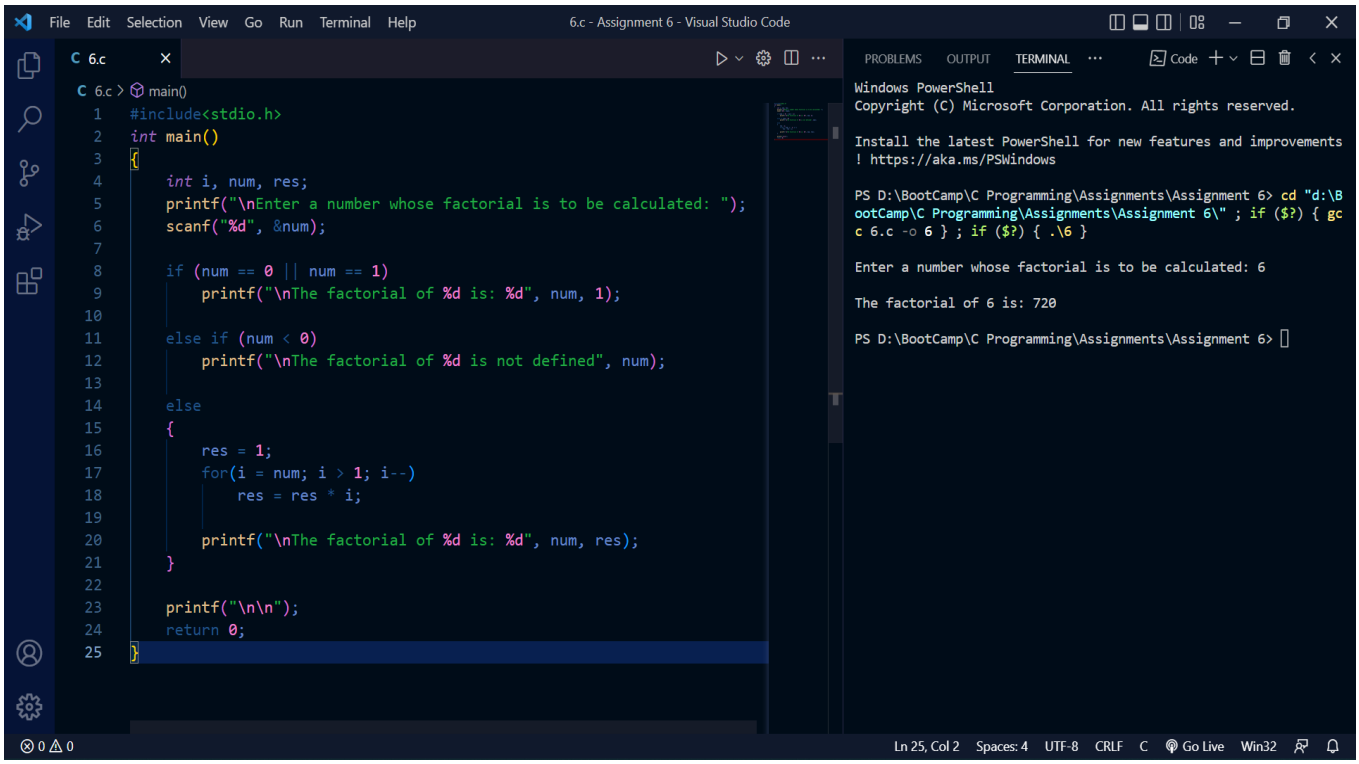
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 5.c -o 5 } ; if ($?) { .\5 }
Enter a natural number: 20
The sum of cubes of first 20 natural numbers is: 44100
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
Ln 17, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q6.


File Edit Selection View Go Run Terminal Help
6.c - Assignment 6 - Visual Studio Code
6.c
6.c > main()
#include<stdio.h>
int main()
{
int i, num, res;
printf("\nEnter a number whose factorial is to be calculated: ");
scanf("%d", &num);
if (num == 0 || num == 1)
printf("\nThe factorial of %d is: %d", num, 1);
else if (num < 0)
printf("\nThe factorial of %d is not defined", num);
else
{
res = 1;
for(i = num; i > 1; i--)
res = res * i;
printf("\nThe factorial of %d is: %d", num, res);
}
printf("\n\n");
return 0;
}
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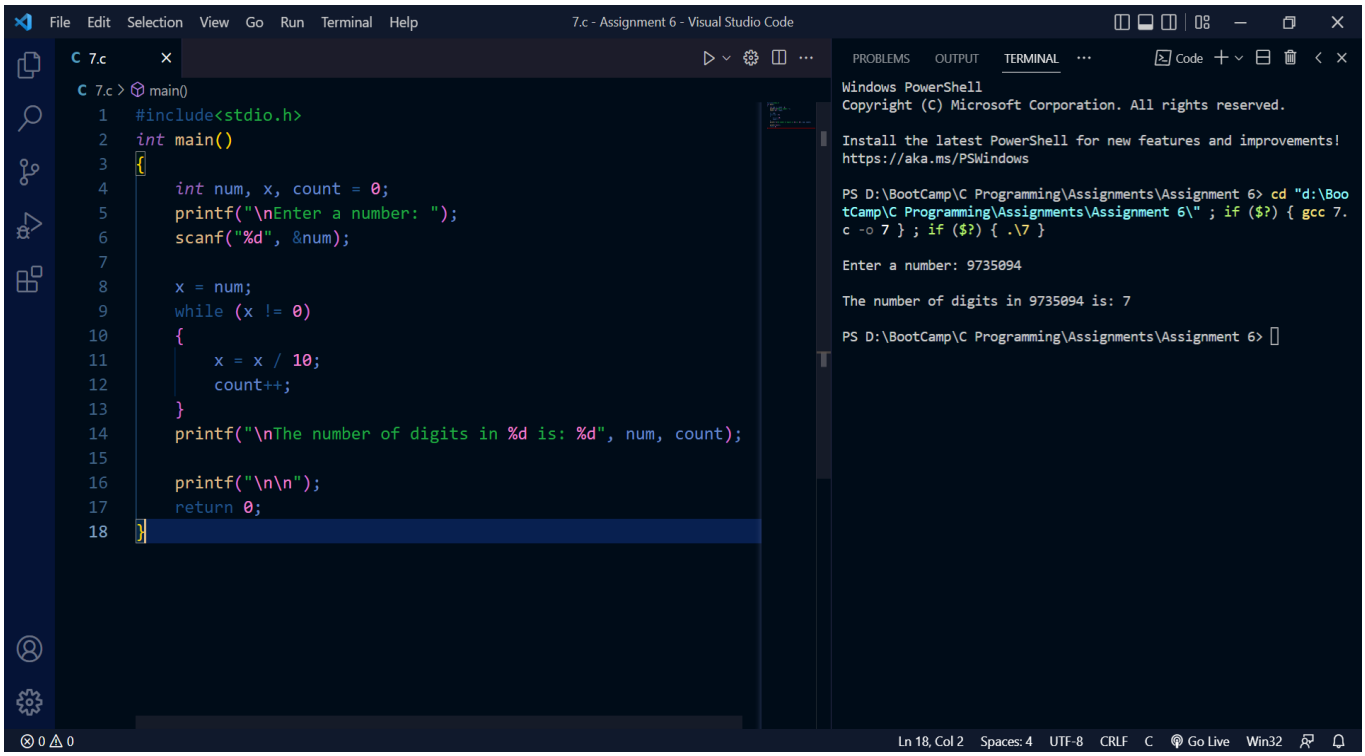
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 6.c -o 6 } ; if ($?) { .\6 }
Enter a number whose factorial is to be calculated: 6
The factorial of 6 is: 720
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
Ln 25, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q7.


File Edit Selection View Go Run Terminal Help
7.c - Assignment 6 - Visual Studio Code
7.c
7.c > main()
#include<stdio.h>
int main()
{
int num, x, count = 0;
printf("\nEnter a number: ");
scanf("%d", &num);
x = num;
while (x != 0)
{
x = x / 10;
count++;
}
printf("\nThe number of digits in %d is: %d", num, count);
printf("\n\n");
return 0;
}
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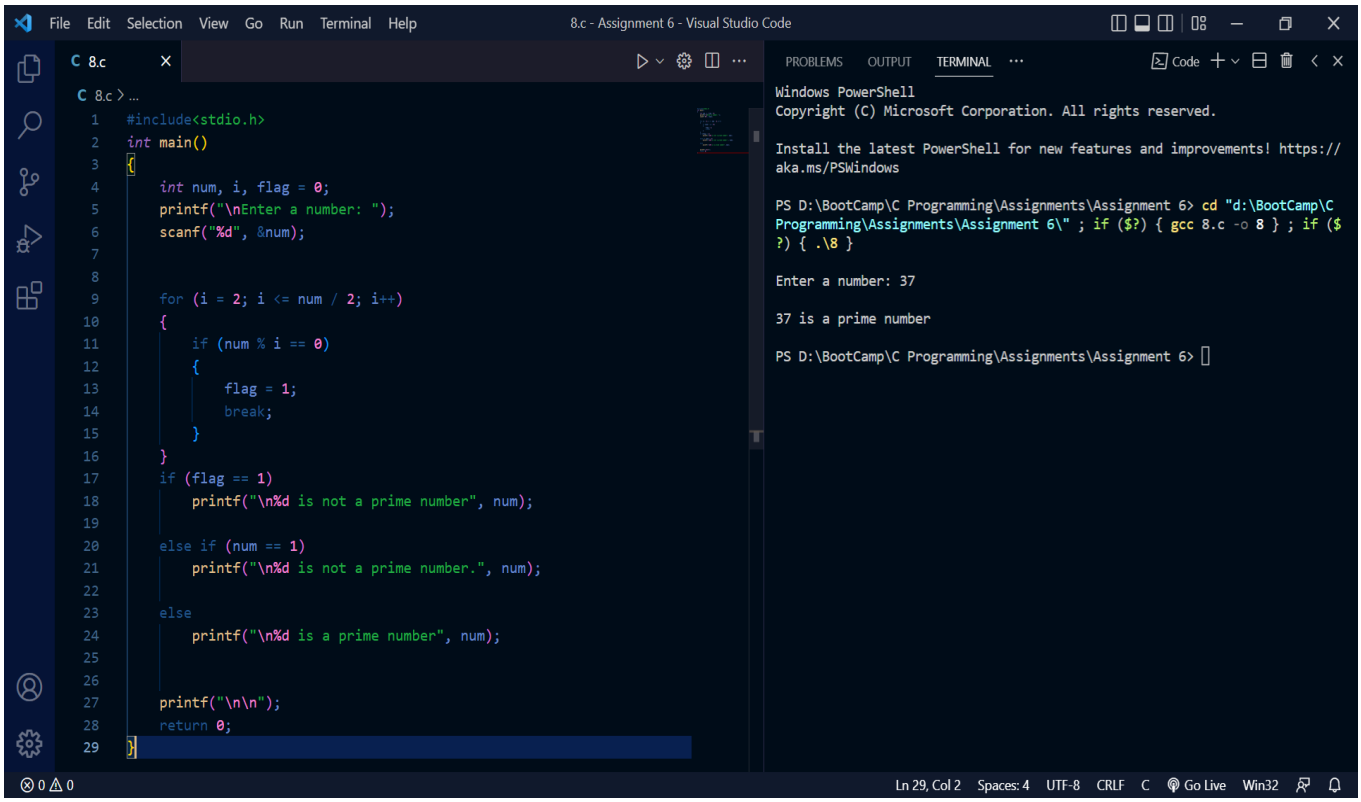
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 7.c -o 7 } ; if ($?) { .\7 }
Enter a number: 9735094
The number of digits in 9735094 is: 7
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
0 0
Ln 18, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q8.


File Edit Selection View Go Run Terminal Help
8.c - Assignment 6 - Visual Studio Code
8.c
8.c > ...
#include<stdio.h>
int main()
{
int num, i, flag = 0;
printf("\nEnter a number: ");
scanf("%d", &num);
for (i = 2; i <= num / 2; i++)
{
if (num % i == 0)
{
flag = 1;
break;
}
}
if (flag == 1)
printf("\n%d is not a prime number", num);
else if (num == 1)
printf("\n%d is not a prime number.", num);
else
printf("\n%d is a prime number", num);
printf("\n\n");
return 0;
}
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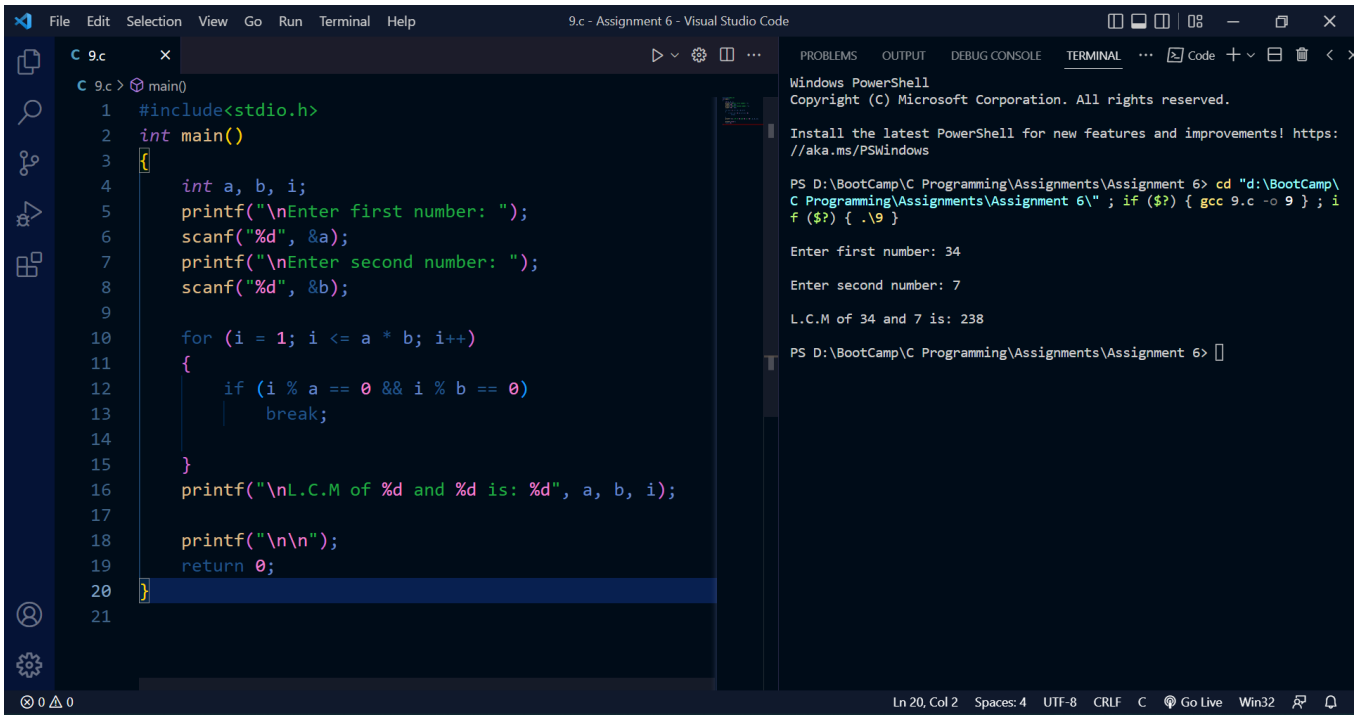
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 8.c -o 8 } ; if ($?) { .\8 }
Enter a number: 37
37 is a prime number
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
0 0
Ln 29, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q9.


File Edit Selection View Go Run Terminal Help
9.c - Assignment 6 - Visual Studio Code
9.c
9.c > main()
#include<stdio.h>
int main()
{
int a, b, i;
printf("\nEnter first number: ");
scanf("%d", &a);
printf("\nEnter second number: ");
scanf("%d", &b);
for (i = 1; i <= a * b; i++)
{
if (i % a == 0 && i % b == 0)
break;
}
printf("\nL.C.M of %d and %d is: %d", a, b, i);
printf("\n\n");
return 0;
}
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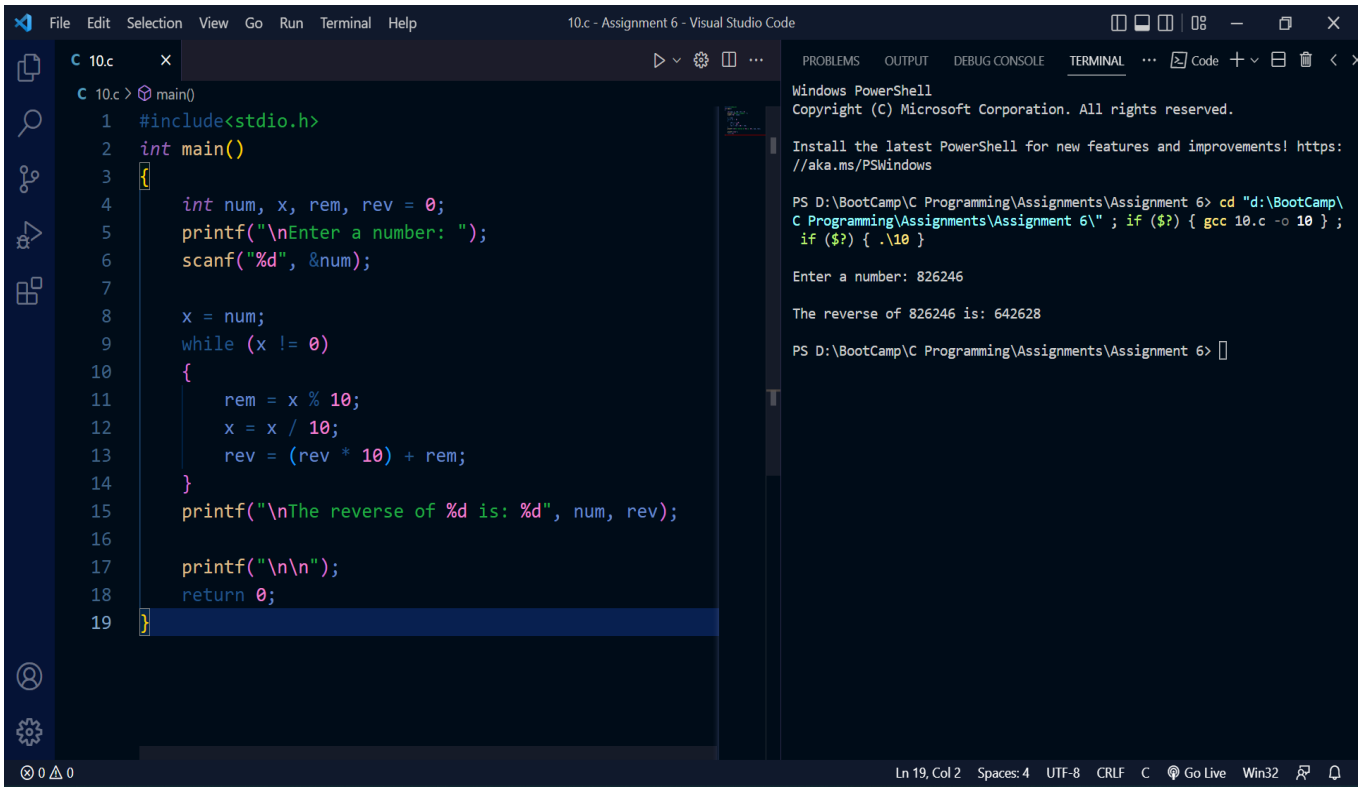
PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 9.c -o 9 } ; if ($?) { .\9 }
Enter first number: 34
Enter second number: 7
L.C.M of 34 and 7 is: 238
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
Ln 20, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32

Q10.


File Edit Selection View Go Run Terminal Help
10.c - Assignment 6 - Visual Studio Code
10.c
10.c > main()
#include<stdio.h>
int main()
{
int num, x, rem, rev = 0;
printf("\nEnter a number: ");
scanf("%d", &num);
x = num;
while (x != 0)
{
rem = x % 10;
x = x / 10;
rev = (rev * 10) + rem;
}
printf("\nThe reverse of %d is: %d", num, rev);
printf("\n\n");
return 0;
}
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PS D:\BootCamp\C Programming\Assignments\Assignment 6> cd "d:\BootCamp\C Programming\Assignments\Assignment 6\" ; if ($?) { gcc 10.c -o 10 } ; if ($?) { .\10 }
Enter a number: 826246
The reverse of 826246 is: 642628
PS D:\BootCamp\C Programming\Assignments\Assignment 6>
Ln 19, Col 2 Spaces: 4 UTF-8 CRLF C Go Live Win32