

Josaiah L. Borres

CMSC21-1

1. Code the following:

a. Prompt the user to enter a two-digit number



C Online Compiler

main.c		Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int reverse=0, final, number; //creates a variable that the data will be stored 6 printf("Enter the number you want to reverse"); 7 scanf("%d", &number); //serves as the user prompt this will scan the input of the user 8 while (number != 0) { //a while statement is a determinant as to stop the loop, if the number is equal to 0 then the loop stops 9 final = number % 10; // 10 reverse = reverse * 10 + final; //formula to reverse the code 11 number /= 10; 12 } 13 14 printf("Reversed number = %d", reverse); 15 16 return 0; 17 } 18</pre>			<pre>/tmp/Z7tTAxBvPe.o Enter the number you want to reverse321 Reversed number = 123</pre>

Activate Windows

b. Display the number with the digits reversed

2. Extend the code in item 1, such that it reverses a 3-digit number.

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C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int reverse=0, final, number, number1; //creates a variable that the data will be stored 6 printf("please enter a 3 digit number"); 7 scanf("%d", &number); //serves as the user prompt this will scan the input of the user 8 if (number>99 & number<999){ 9 number1=number; 10 } 11 else{ 12 printf("invalid number"); 13 } 14 } 15 while (number1 != 0) { //a while statement is a determinant as to stop the loop, if the number is equal to 0 then the loop stops 16 final = number1 % 10; // 17 reverse = reverse * 10 + final; //formula to reverse the code</pre>		<pre>/tmp/Z7tTAxBvPe.o please enter a 3 digit number4321 invalid number</pre>

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C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int reverse=0, final, number, number1; //creates a variable that the data will be stored 6 printf("please enter a 3 digit number"); 7 scanf("%d", &number); //serves as the user prompt this will scan the input of the user 8 if (number>99 & number<999){ 9 number1=number; 10 } 11 else{ 12 printf("invalid number"); 13 } 14 } 15 while (number1 != 0) { //a while statement is a determinant as to stop the loop, if the number is equal to 0 then the loop stops 16 final = number1 % 10; //</pre>		<pre>/tmp/Z7tTAxBvPe.o please enter a 3 digit number432 Reversed number = 234</pre>

3. Provide the output of the following codes, given that i, j, and k are integer variables.

a) i = 3; j = 4; k = 5;

printf("%d", i < j || ++j < k);

b) i = 7; j = 8; k = 9;

printf("%d", i - 7 && j++ < k);

c) i = 7; j = 8; k = 9;

printf("%d", (i == j) || (j == k)); printf("%d %d %d", i, j, k);

d) i = j = k = 1; printf("%d", ++i || ++j && ++k); printf("%d %d %d", i, j, k);

a)

C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int i = 3, j = 4, k = 5; 6 printf("%d", i < j ++j < k); 7 8 return 0; 9 }</pre>		<pre>/tmp/IiQQwdUV1P.o 1</pre>

b)

C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int i = 7, j = 8, k = 9; 6 printf("%d", i - 7 && j++ < k); 7 8 return 0; 9 }</pre>		<pre>/tmp/IiQQwdUV1P.o 0</pre>

c)

Programiz

C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3</pre>		<pre>/tmp/IiQQwdUV1P.o 18 8 9</pre>

d)

Programiz

C Online Compiler

main.c	Run	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int i = 1, k=1, j=1; //i=k=j=1 means that every integer is equal to 1 6 printf("%d", ++i ++j && ++k); 7 printf("%d %d %d", i, j, k); 8 return 0; 9 }</pre>		<pre>/tmp/IiQQwdUV1P.o 12 1 1</pre>