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COURSE CODE: - 1CS501

SUBJECT: - COMPUTER PROGRAMMING

PRACTICAL NO 1: Demonstration of CodeBlocks IDE, Writing and compiling a simple C program

- a) Demonstration of CodeBlocks IDE. Make use of CodeBlocks to write and compile a simple C program ("Hello World").

Code :

```
#include <stdio.h>

int main() {

    printf("Hello world!\n");

    return 0;

}
```

Output:

A screenshot of a Windows command prompt window. The title bar at the top reads "C:\Users\JaySs\OneDrive\Desktop\Projects\CP Tutorials\bin\Debug\CP Tutorials.exe". The main area of the window displays the output of a C program: "Hello world!". Below this, it shows "Process returned 0 (0x0) execution time : 0.030 s" and "Press any key to continue." The background is black with white text.

- b) Illustrate the use of scanf and printf function to read and display values of different types of variables, address of a variable in C language.

1. To scan and print values of different types of variables

Code:

```
#include <stdio.h>

int main() {

    int a1;

    float a2;

    char a3[100];

    double a4;

    printf("Enter integer number :");

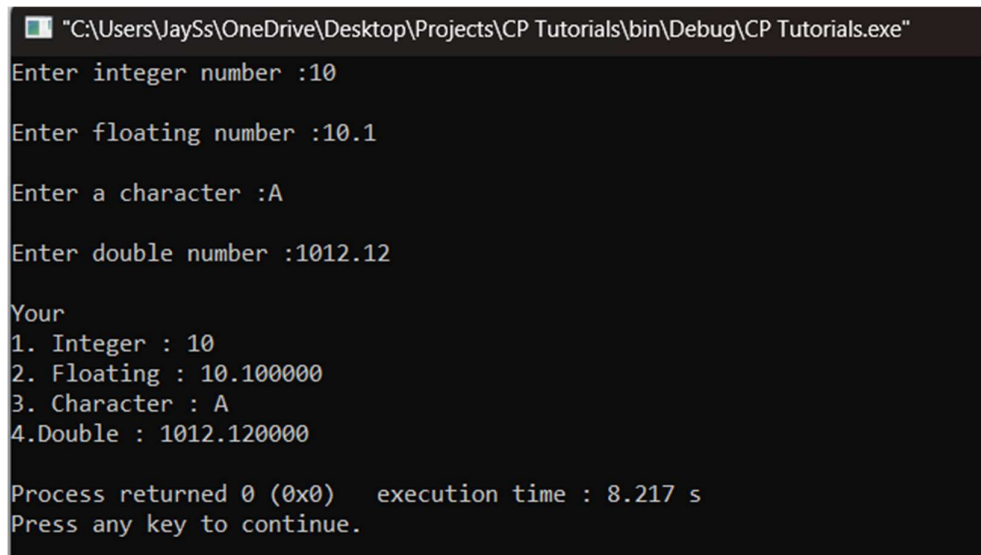
    scanf("%d", &a1);
```

```

printf("\nEnter floating number :");
scanf("%f", &a2);
printf("\nEnter a character :");
scanf("%s", &a3);
printf("\nEnter double number :");
scanf("%lf", &a4);
printf("\nYour \n1. Integer : %d\n2. Floating : %f\n3. Character : %s\n4. Double : %lf\n", a1, a2, a3, a4);
return 0;
}

```

Output:



```

"C:\Users\JaySs\OneDrive\Desktop\Projects\CP Tutorials\bin\Debug\CP Tutorials.exe"
Enter integer number :10
Enter floating number :10.1
Enter a character :A
Enter double number :1012.12
Your
1. Integer : 10
2. Floating : 10.100000
3. Character : A
4. Double : 1012.120000
Process returned 0 (0x0)   execution time : 8.217 s
Press any key to continue.

```

2. To print address of a variable.

Code:

```

#include <stdio.h>

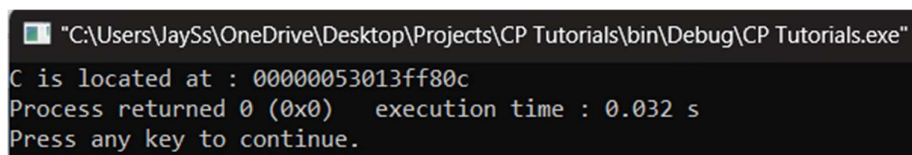
int main()
{
    int c;

    printf("C is located at : %p", &c);

    return 0;
}

```

Output:



```

"C:\Users\JaySs\OneDrive\Desktop\Projects\CP Tutorials\bin\Debug\CP Tutorials.exe"
C is located at : 00000053013ff80c
Process returned 0 (0x0)   execution time : 0.032 s
Press any key to continue.

```

3. To demonstrate different escape sequence.

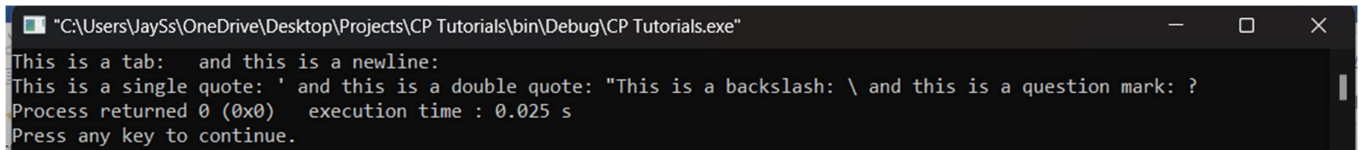
Code:

```
#include <stdio.h>

int main()
{
    printf("This is a tab: \t and this is a newline: \n");
    printf("This is a single quote: \' and this is a double quote: '\"");
    printf("This is a backslash: \\ and this is a question mark: \?");

    return 0;
}
```

Output:



```
"C:\Users\JaySs\OneDrive\Desktop\Projects\CP Tutorials\bin\Debug\CP Tutorials.exe"
This is a tab:  and this is a newline:
This is a single quote: ' and this is a double quote: "This is a backslash: \ and this is a question mark: ?
Process returned 0 (0x0)  execution time : 0.025 s
Press any key to continue.
```