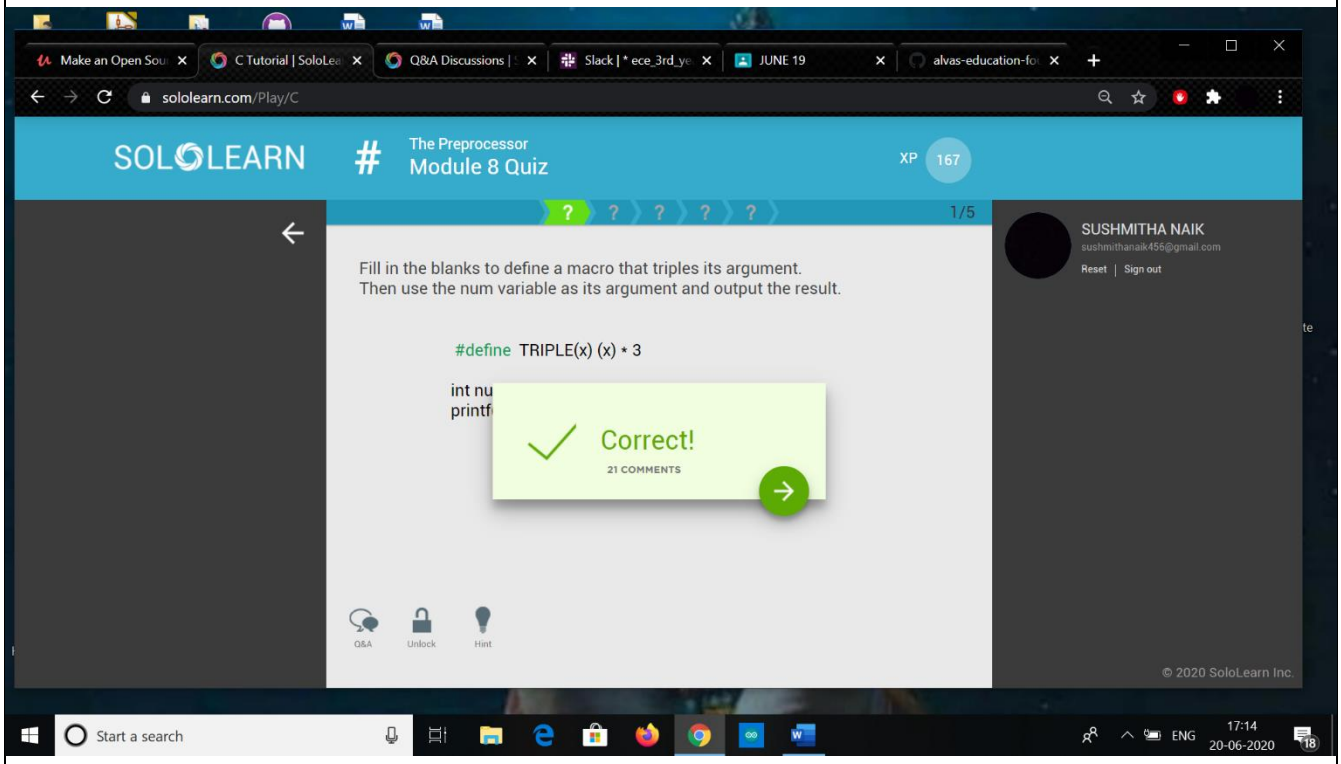
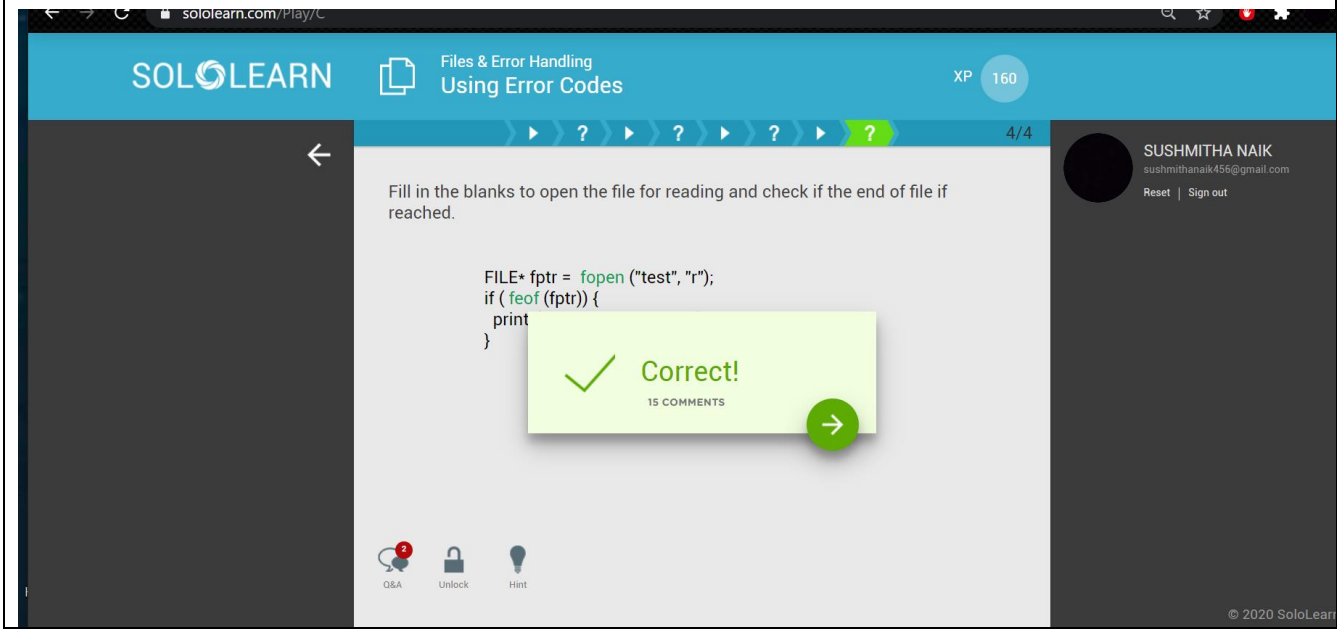
DAILY ASSESSMENT FORMAT

Date:	**20th June 2020**	**Name:**	**Sushmitha R Naik**
Course:	**Solo learning**	**USN:**	**4AL16EC090**
Topic:	• **Files and Error** • **Handling Pre-Processor** • **Certificate**	**Semester & Section:**	**6th B**
GitHub Repository:	**Sushmitha_naik**		

FORENOON SESSION DETAILS





Report –

Accessing Files:

- **An external file can be opened, read from, and written to in a C program. For these operations, C includes the FILE type for defining a file stream. The file stream keeps track of where reading and writing last occurred.**
- **The stdio.h library includes file handling functions:**
- **FILE Typedef for defining a file pointer.**
- **fopen(filename, mode) Returns a FILE pointer to file filename which is opened using mode. If a file cannot be opened, NULL is returned.**

Mode options are:
- r open for reading (file must exist)
- w open for writing (file need not exist)
- a open for append (file need not exist)
- r+ open for reading and writing from beginning
- w+ open for reading and writing, overwriting file
- a+ open for reading and writing, appending to file
fclose(fp) Closes file opened with FILE fp, returning 0 if close was successful. EOF (end of file) is returned if there is an error in closing.

```
#include <stdio.h>
int main () {
FILE *fptr;
 fptr = fopen ("myfile.txt",
 "w"); if (fptr == NULL) {
 printf ("Error opening
 file."); return -1;
 }
 fclose(fptr);
 return 0;
}
```

Reading from a File:

- **The stdio.h library also includes functions for reading from an open file. A file can be read one character at a time or an entire string can be read into a character buffer, which is typically a char array used for temporary storage.**
- **fgetc(fp) Returns the next character from the file pointed to by fp. If the end of the file has been reached, then EOF is returned.**
- **fgets(buff, n, fp) Reads n-1 characters from the file pointed to by fp and stores the string in buff. A NULL character '\0' is appended as the last character in buff. If fgets encounters a newline character or the end of file before n-1 characters is reached, then only the characters up to that point are stored in buff.**
- **fscanf(fp, conversion_specifiers, vars) Reads characters from the file pointed to by fp and assigns input to a list of variable pointers vars using conversion_specifiers. As with scanf, fscanf stops reading a string when a space or newline is encountered.**

Pre-processor Directives:

The C preprocessor uses the # directives to make substitutions in program source code before compilation.
For example, the line #include <stdio.h> is replaced by the contents of the stdio.h header file before a program is compiled.

Preprocessor directives and their uses:

#include Including header files.

#define, #undef Defining and undefining macros.

#ifdef, #ifndef, #if, #else, #elif, #endif Conditional compilation.

#pragma Implementation and compiler specific.

#error, #warning Output an error or warning message An error halts compilation.

Certificate: