Prog 6. a. Type the below text, Perform the following information by using sed.

"Python is a very popular language.
Python is easy to use. Python is easy to learn.
Python is a cross-platform language
HTML is a Markup Language
Python Programming Language
C Programming Language
Shell Programming
Perl Programming Language Bash"

i. Replace all instances of a Python in a second line of 1.txt with Perl.

ii. Replace the last occurrence of Programming with Scripting only of a match, not other instances.

iii. Create a text file in the path /MSRIT/CSE/UG/Python.txt. Replace full path with just the filename no directory (such as Python.txt) and display it on standard output.

iv. Add string before and after the matching pattern using '\1'. In the above given text, navigate yourself to last line, you can find Bash keyword, Add Learn before Bash and Programming after Bash keyword.

Solution or Output:

exam@ThinkCentre-M70t:~$ cat >1.txt
"Python is a very popular language.
Python is easy to use. Python is easy to learn.
Python is a cross-platform language
HTML is a Markup Language
Python Programming Language
C Programming Language
Shell Programming
Perl Programming Language
Perl Programming Language Bash"

exam@ThinkCentre-M70t:~$ cat 1.txt
"Python is a very popular language.
Python is easy to use. Python is easy to learn.
Python is a cross-platform language
HTML is a Markup Language
Python Programming Language
C Programming Language
Shell Programming
Perl Programming Language
Perl Programming Language Bash"

exam@ThinkCentre-M70t:~$ sed '1,9 s/Python/perl/g' 1.txt
"perl is a very popular language.
perl is easy to use. perl is easy to learn.
perl is a cross-platform language

HTML is a Markup Language
perl Programming Language
C Programming Language
Shell Programming
Perl Programming Language
Perl Programming Language Bash"

Certainly! Let's break down the sed commands step by step:

i. Replace all instances of "Python" in the second line of 1.txt with "Perl":

sed '2 s/Python/Perl/g' 1.txt

2: Specifies that we want to apply the command only to the second line.

s/Python/Perl/g: Substitutes all occurrences of "Python" with "Perl" globally in the specified line.

ii. Replace the last occurrence of "Programming" with "Scripting" only if it matches, not other instances:

sed 's/\(.*\)Programming/\1Scripting/' 1.txt

s/\(.*\)Programming/\1Scripting/: This captures everything before the last occurrence of "Programming" and substitutes it with the captured content followed by "Scripting".

iii. Create a text file in the path /MSRIT/CSE/UG/Python.txt. Replace the full path with just the filename (such as Python.txt) and display it on standard output:

sed 's/\/MSRIT\/CSE\/UG\///; s/\/Python.txt/Python.txt/' <<< "/MSRIT/CSE/UG/Python.txt"

s/\/MSRIT\/CSE\/UG\///: Removes the directory path before "/Python.txt".

s/\/Python.txt/Python.txt/: Removes the trailing directory separators.

iv. Add string before and after the matching pattern using '\1':

sed '$s/\(.*\)Bash/\1Learn Bash Programming/' 1.txt

> **$**: Specifies that the command should be applied to the last line.

> **s/\(.*\)Bash/\1Learn Bash Programming/**: Captures everything before "Bash" and substitutes it with the captured content followed by "Learn Bash Programming".

The output of these sed commands will produce the desired modifications in the given text file.