1) what is wildcard Pattern Matching.

Ans: Given a text and a wildcard pattern, implement wildcard pattern matching algorithm that finds if wildcard pattern is matched with text. The matching should cover the entire text. The wildcard pattern can include the characters '?' and '*'

'?' - matches any single character.

'*' - Matches any sequence of characters (including the empty sequence)

ex:

Text = "baaabab",

Pattern = "*****ba*****ab", o/p: True.

Pattern: "baaa?ab", o/p: true.

Pattern = "ba*a?", o/p: true.

Pattern = "a*ab", o/p: False.

Case 1: The character is '*'

Here two cases arise

1. We can ignore '*' character and move to next character in the Pattern

2 '*' character matches with one or more characters in Text. Here we will move to next character in the string.

Case 2: The character is '?'

We can ignore current character in Text and move to next character in the Pattern and Text.

Case 3: The character is not a wildcard character.

If current character in Text matches with current character in Pattern, we move to next character in the pattern and Text. If they do not match, wildcard pattern and Text do not match.

2) What is metacharacter ? and commands.

Ans: The most powerful feature of the Linux Bash shell is its capability to work around files and redirect their input and output efficiently. Linux uses special characters or symbols known as metacharacters that add special meaning to a shell command with respect to file search and commands connection.

The Linux shell allows to save keystrokes while typing commands by using metacharacters between file or directory names. These characters help you refer to a group of files or directory to list, move or perform other activities on.

- $ - Variable Substitution
- * (Asterisk): Matches single or multiple occurrence of a character.
- ! - History Substitution
- ? (Question mark): Matches a single character or pattern occurrence.
- &> - Redirection ls > file of output.
- [] (Square Bracket): Matches any hyphen-separated number, symbol or alphabets specified inside the square brackets.
- < Redirection ls < file of Input.

3. What is character class and examples?

Ans: A character class matches any one character from a set of characters. A typical form for this is the bracketed character class [...], which matches any one character from the non-empty sequence of characters enclosed within the brackets.

ex: ls chap[1-2]

o/p: chap1 chap2

ls chap[11-3]

o/p chap4 chap5