**SED INTERMIDIATE GUIDE**

**HOLD SPACES**

**>>>>>Options available for hold-spaces are<<<**

h Copy pattern space to hold space.

H Append pattern space to hold space.

g Copy hold space to pattern space.

G Append hold space to pattern space.

n Read the next line of input into the pattern space.

N Append the next line of input into the pattern space.

x x exchanges the content of pattern space with hold space(previous line).

Examples:

1. Use of **h,g,p,n hold** space option

Cat temp >

Arpit

Milind

Akash

Ekant

Arpit

Yogesh

Rahul

Now in this case if I want to alter the data , like

Output >

Milind

Arpit

Ekant

Akash

Arpit

Yogesh

Rahul

Then the sed command for it will be

**sed -n 'h;n;p;g;p;n;h;n;p;g;p;n;p;n;p;n;p' temp**

1. h place arpit in hole space
2. n shift to next line MIlind
3. p prints Milind
4. g places hold space in pattern I;e miling is replaced with Arpit
5. p print Arpit
6. n move to next line
7. h again does the same task line point 1 but for Akash
8. n shift to next line print ekant
9. g replaces akash in paten space
10. p prints akash
11. rest all remains the same so n;p continues
12. Use of **x hold** space option

X is used to exchange the pattern space value with hold space(previous line)

Cat temp >

Arpit

Milind

Akash

Ekant

Arpit

Yogesh

Rahul

If in above example I want to delete the every line above Arpit only

Sed command will be

**sed -n '/Arpit/{x;d};x;p;${x;p}' temp**

working

**\*\*\*\*\* x;p : this particular thing execute firsts and for every line, so while x;p is executing for every line x exchanges the values of pattern space with hold space and p print the values of pattern space\*\*\*\***

1. so the first hold space in new line “empty line”
2. x replace this hold value with pattern space i.e. Arpit becomes hold space and blank value becomes pattern space , but {x;d} this command will delete the pattern space in this case it will be blank line as condition satisfies /Arpit/
3. then it will shift to next line , so now in hold we have Arpit and in pattern we have Milind, x will exchange the values and thus Arpit will come in pattern space , milind will go in hold space and p will print pattern space I;e Arpit will get printed
4. again it will shift to next line now Milind is in hold space and Akash in pattern space again x will exchange the value will bring milind in pattern spaceand p will print it
5. this action will repeat for all lines accept that with value =Aarpit
6. for Arpit it will delete its prior value
7. repeat it you will understand
8. ${x;p} this is used to print the last value which remain in hold space

Output

Arpit

Milind

Akash

Arpit

Yogesh

Rahul

1. Use of **H,N,G hold** space option

c.1) Use of N

Cat temp >

Arpit

Milind

Akash

Ekant

Arpit

Yogesh

Rahul

Now here if I want to delet the line next to Milind

Sed command will be

**sed '/Milind/{N;s/\n.\*//}' temp**

output

Arpit

Milind

Ekant

Arpit

Yogesh

Rahul

in the above command

1>N stores the two line value at once

As its definition

Append the next line of input into the pattern space.

So here whenever Milind is encountered N had two values i.e. Milind and value of its next line i.i Akash

So s/\n.\*// >> will simple null the next value to that of Milind

Similarly command can be written to delete Milind and its next line

**sed '/Milind/{N;s/.\*//}' temp**

output

Arpit

Ekant

Arpit

Yogesh

Rahul

c.1) Use of **H ,G hold space options**

if we want to add multiple lines in buffer then H, and G Is used to append values to hold space and retrieve it from

Now if I want to place Akash in the below

Cat temp >

Arpit

Milind

Akash

Ekant

Arpit

Yogesh

Rahul

output>

Akash

Arpit

Milind

Ekant

Arpit

Yogesh

Rahul

Then sed command will be

**sed -n 'h;n;H;n;G;p;n;p;n;p;n;p;n;p;n;p' temp**

just like small h and g only thing is it append the value in hold space and back in print space respectively