```c
#include #include #include #include #include #include // open,read(),close() : file related function
void search(char *p1,char *pat,char*fname) { int handle,i=0,cnt=0; char ch,data[100],*ptr;
handle=open(fname,O_RDONLY); if(handle==-1) { printf("\n File %s Not Found....",fname); }
else { if(strcmp(p1,"F")==0) { i=0; while(read(handle,&ch,1)) //on failure read() function returns 0
{ data[i]=ch; i++; if(ch=='\n') { data[i]='\0'; if(strstr(data,pat)!=NULL) { printf("\nFIRST
OCCURANCE OF PATTERN IN LINE IS GIVEN BELOW\n"); puts(data); break; } i=0; } }
close(handle); } else if(strcmp(p1,"C")==0) { cnt=0; i=0; while(read(handle,&ch,1)) //on failure
read() function returns 0 { data[i]=ch; i++; if(ch=='\n') { data[i]='\0'; ptr=data;
while((ptr=strstr(ptr,pat))!=NULL) { cnt++; ptr++; } i=0; } } printf("\nNo of occurances of '%s' =
%d",pat,cnt); close(handle); } else if(strcmp(p1,"A")==0) { printf("\nDispaying All Occurances of
'%s'\n",pat); i=0; while(read(handle,&ch,1)) //on failure read() function returns 0 { data[i]=ch; i++;
if(ch=='\n') { data[i]='\0'; if((ptr=strstr(data,pat))!=NULL) { puts(data); } i=0; } } } }//else } int main()
{ char cmd[80],tok1[10],tok2[10],tok3[10],tok4[10]; int n; while(1) { printf("\nMYSHELL $]");
fgets(cmd,80,stdin); n=sscanf(cmd,"%s%s%s%s",tok1,tok2,tok3,tok4); //n=no of tokens are
formed from given command switch(n) { case 1: if(fork()==0) { execlp(tok1,tok1,NULL);
//paramenters- nameOfProcess,parametersOfProcess } wait(0); break; case 2 : if(fork()==0) {
execlp(tok1,tok1,tok2,NULL); } wait(0); break; case 3: if(fork()==0) {
execlp(tok1,tok1,tok2,tok3,NULL); } wait(0); break; case 4 : if(strcmp(tok1,"search")==0) {
search(tok2,tok3,tok4); } else { if(fork()==0) { execlp(tok1,tok1,tok2,tok3,tok4,NULL); } wait(0); }
break; } } } /* OUTPUT * [shalmali@localhost SHELL]$ ./a.out * * MYSHELL $]search F india
a.txt * * FIRST OCCURANCE OF PATTERN IN LINE IS GIVEN BELOW * I love my india. * * *
MYSHELL $]search C india a.txt * * No of occurances of 'india' = 2 * MYSHELL $]search A india
a.txt * * Dispaying All Occurances of 'india' * I love my india. * * we are computer students from
india. * * * MYSHELL $]^C * [shalmali@localhost SHELL]$ * * */
```