

```
1: #include <stdio.h>  
2: #include <stdlib.h>  
3: #include <math.h>  
4: //Constructed By Dominic Alexander Cooper  
5: int main(){  
6:  
7:  
8:     char a[101] = {'a','b','c','d','e','f','g','h','i','j','k','l','m','n','o','p','q',  
        'r','s','t','u','v','w','x','y','z',' ','\n','\t',' ',' ','\n','>', '?',  
        ':',';','@','#','%','^','&','*',  
        '(' , ')', '-', '_', '+', '=', 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O',  
        'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z', '\0', '1', '2', '3', '4', '5', '6', '7', '8', '9',  
        '\0'} ;  
  
    FILE *p; p = fopen("SOLUTION1.txt","w");  
    int k = 100;  
    printf("\n\tk = 100");  
    int noc; printf("\n\tn = ");  
    scanf("%d",&noc);  
    printf("\n\tNumber Of FILE Cells = %d",noc);  
    int n=noc;  
    int row,col;  
    int cell;  
    int rdiv;  
    int id;  
    id=0;  
    int nbr_comb=pow(k+1,n);  
    for(row=0; row<nbr_comb; row++){  
        id++; fprintf(p,"\n\n\nFILE%d\n\n\n",id);  
        for(col=n-1; col>=0; col--){ rdiv=pow(k+1,col);  
            cell=(row/rdiv)%(k+1); fprintf(p,"%c",a[cell]);  
        }  
        printf("\n");  
    }  
    fprintf(p,"\n\n\t(k+1)^n = (%d + 1)^%d = %d",k,n,id);  
    fclose(p);  
  
    return 0;  
}
```