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Answer 2.3

```c
#include <stdio.h>
#include <string.h>
void cipher(int i, int c);
int findMin();
void makeArray(int, int);
char arr[22][22], dur[22][22], emsnge[111], suptmsnge[111],
        key[55];
char temp[55], temp2[55];
int k = 0;
int main()
{
    char *msnge, *dmsnge;
    int i, j, klen, emlen, flag = 0;
    int n, c, index, min, rows;

    clrscr();
    printf("\n enter the key\n");
    fflush(stdin);
    gets(key);
    printf("\n enter msnge to be ciphered\n");
    fflush(stdin);
    gets(msnge);
    strcpy(temp, key);
    klen = strlen(key);
    k = 0;
    for(i=0; ; i++)
    {
        if(flag == 1)
            break;
        for(j=0; key[j] != NULL; j++)
        {
            if(msnge[k] == NULL)
            {
                flag = 1;
                arr[i][j] = '_';
            }
        }
```

```c
        else
        {   arr[i][j] = message[k++];
        }
    }
}

r = i;
c = j;
for(i=0; i<r; i++)
{
    for(j=0; j<c; j++)
    {   printf("%c", arr[i].[j]);
    }
    printf("\n");
}

k=0;
for(i=0;i<klen; i++)
{   index = findMin();
    ciphy(index, r);
}
emessage[k] = '\0';
printf("Encrypted message is \n");
for(i=0; emessage[i] != NULL; i++)
    printf("%c", emessage[i]);
printf("\n\n");
emlen = strlen(emessage);
strcpy(tem, key);
rows = emlen / klen;
rows;
j=0;
for(i=0; k=1, emessage[i]!=NULL; i++, k++) {
```

```c
temp2[j++] = emessage[i];
if((k % rows) == 0)
{
    temp2[i] = '\0';
    index = findMin();
    makeArray(index, rows);
    j = 0;
}
}

printf("\n Array Retrieved is \n");
k = 0;
for(i=0; i<r; i++){
    for(j=0; j<c; j++)
    {   printf("%c", darr[i][j]);
        leftmessage[k++] = darr[i][j];
    }
}
leftmessage[k] = '\0';
printf(" Message retrived is );
for(i=0; leftmessage[i]! = NULL; i++)
    printf("%c", leftmessage[i]);
getch();
return(0);
}
void cipher(int i, int r)
{
    int j;
    for(j=0; j<r; j++)
    {   emessage[k++] = arre[j][i];
    }
}
void makeArray(int col, int row)
{
```

```
int i, j;
for (i=0; i<now; i++)
{ darr[i][0] = temp2[i];
}
}
}
int findMin()
{ int i, j, min, index;
min = temp[0];
index = 0;
for (j=0; temp[j]! = NULL; j++)
{ if (temp3[j] < min)
{ min = temp[j];
index = j;
}
}
temp [index] = 123;
return (index);
}
```

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