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Answer(3):- #include <stdio.h>
#include <string.h>

int main()
{
    char msg[] = "Cryptography";
    char key[] = "Monarchy";
    int msglen;
    int msglen = strlen(msg), keylen = strlen
        (key), i, j;

    char newkey[msglen], encryptedMsg[msglen],
        decryptedMsg[msglen];

    for (i = 0, j = 0; i < msglen; ++i, ++j)
    {
        if (j == keylen)
            j = 0;

        newkey[i] = key[j];
    }

    newkey[i] = '\0';

    for (i = 0; i < msglen; ++i)
        encryptedMsg[i] = ((encryptedMsg[i] -
            newkey[i]) + 26) % 26 + 'A';
}
```

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decryptedmsg[i] = '\0';
```

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printf("Original Message: %s", msg);
```

```
printf("\nKey: %s", key);
```

```
printf("\nNew Generated Key: %s", newKey);
```

```
printf("\nEncrypted Message: %s", encrypted  
msg);
```

```
printf("\nDecrypted Message: %s", decrypted  
msg);
```

```
return 0;
```

```
}
```