

CSA1413- COMPILER DESIGN FOR INTERMEDIATE LANGUAGE

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Implement a C program to eliminate left recursion.

PROGRAM:

```
#include <stdio.h>
```

```
#include <string.h>
```

```
int main()
```

```
    char A[10], alpha[10], beta[10];
```

```
    printf("Enter non-terminal (A): ");
```

```
    scanf("%s", A);
```

```
    printf("Enter beta (non-recursive part): ");
```

```
    scanf("%s", beta);
```

```
    printf("Enter alpha (recursive part): ");
```

```
    scanf("%s", alpha);
```

```
    printf("After eliminating left recursion:\n");
```

```
    printf("%s -> %s%s\n", A, beta, A);
```

```
    printf("%s' -> %s%s' | ε\n", A, alpha, A);
```

```
    return 0;
```

```
}
```

OUTPUT:

```
Enter non-terminal (A): A
Enter beta (non-recursive part): b
Enter alpha (recursive part): a
After eliminating left recursion:
A -> bA'
A' -> aA' | ε
```

```
==== Code Execution Successful ===
```