Compiler Design

Assignment – 4: First find

CODE:

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

int count,n=0;
char prodn[10][10], first[10];

void FIRST(char c)
{
        int j;
        if(!(isupper(c)))first[n++]=c;
        for(j=0;j<count;j++)
        {
                if(prodn[j][0]==c)
                {
                        if(prodn[j][2]=='$') first[n++]='$';
                        else if(islower(prodn[j][2]))first[n++]=prodn[j][2];
                        else FIRST(prodn[j][2]);
                }
        }
}



main()
{
        int i,choice;
        char c,ch;
        printf("How many productions ? :");
```

```
        scanf("%d",&count);
        printf("Enter %d productions epsilon= $ :\n\n",count);
        for(i=0;i<count;i++)
        scanf("%s%c",prodn[i],&ch);
        do
        {
                n=0;
                printf("Element :");
                scanf("%c",&c);

                FIRST(c);
                printf("\n FIRST(%c)= { ",c);
                for(i=0;i<n;i++)
                printf("%c ",first[i]);
                printf("}\n");
                printf("press 1 to continue : ");
                scanf("%d%c",&choice,&ch);
        }
        while(choice==1);
}
```

Output: