Practical No.09

Aim: Programs based on Structure and Union

1. C Program to Create a Book Structure.

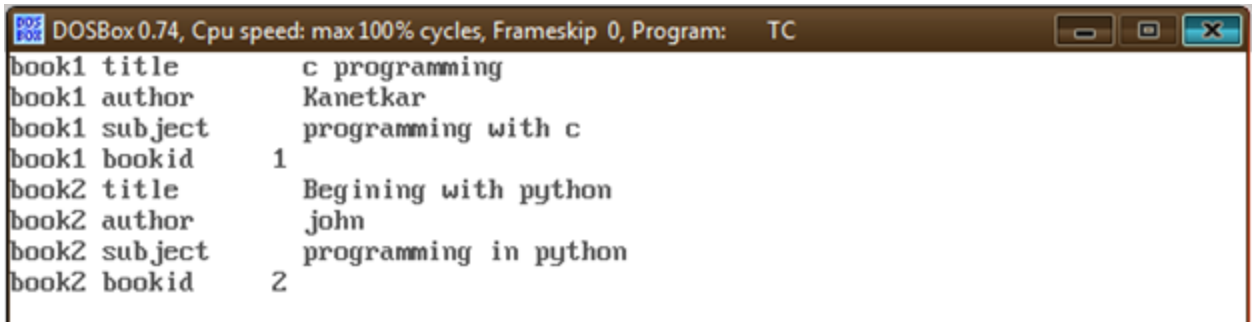
Program:

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

    struct books
{
    char title[50];
    char author[50];
    char subject[100];
    int bookid;
};

void main()
{
    struct books book1;
    struct books book2;

    clrscr();

// book1 specification

    strcpy(book1.title,"  c programming");
    strcpy(book1.author,"  Kanetkar");
    strcpy(book1.subject,"  programming with c");
    book1.bookid=1;

// book2 specification

    strcpy(book2.title,"  Begining with python");
    strcpy(book2.author,"  john");
    strcpy(book2.subject,"  programming in python");
    book2.bookid=2;

// print book1 information

    printf("book1 title\t %s",book1.title);
    printf("\nbook1 author\t %s",book1.author);
    printf("\nbook1 subject\t %s",book1.subject);
    printf("\nbook1 bookid\t %d",book1.bookid);

// print book2 information

    printf("\nbook2 title\t %s",book2.title);
    printf("\nbook2 author\t %s",book2.author);
    printf("\nbook2 subject\t %s",book2.subject);
    printf("\nbook2 bookid\t %d",book2.bookid);

    getch();
}
```

Output:

```
book1 title         c programming
```

```
book1 author              Kanetkar
book1 subject             programming with c
book1 bookid           1
book2 title         Begining with python
book2 author              john
book2 subject             programming in python
book2 bookid           2
```



2. C Program to create a simple Data Structure using Union

Program:

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

union Data
{
   int i;
   float f;
   char str[20];
};

void main()
{

   union Data data;

   clrscr();

   data.i = 10;
   printf( "data.i : %d\n", data.i);

   data.f = 220.5;
   printf( "data.f : %f\n", data.f);

   strcpy( data.str, "C Programming");
   printf( "data.str : %s\n", data.str);

   getch();
}
```

Output:

```
data.i : 10
data.f : 220.500000
data.str : C Programming
```