

ENGINEERING H192
DAILY ASSIGNMENT B22

In this assignment you are to extend your experience with user defined data structures by creating and using an array of structs. The program listed below includes a **main()** function that declares an array called **OSU** which contains five **BuckID** structs as the elements of the array. In addition, there is a function called **fillstruct()** that obtains data from the user. The **main()** function invokes **fillstruct()** repeatedly to initialize the array and then displays its contents using repeated calls to **printf()**.

Create a file called **b22.cpp** and type in the program below. Save the file, compile, link, test, and if necessary, debug it. When it is working correctly, modify it as follows:

1. Add **int mealSwipes** to **struct Account**
2. Add the appropriate statements to **fillstruct()** so that **mealSwipes** can be updated .
3. Create a new struct called **Student** and move **Name** from **Account** into **Student**. Add the integer **ClassRank** to **Student**. Modify the struct **Account** by adding a **Student** struct called **Personal**.
4. Modify **fillstruct()** and **main()** to account for all variables within **BuckID**.

Compile, link, test, and if necessary, debug your modified program. When it is working correctly, print the source code file **b22.cpp** and submit it with this sheet.

```
#include <stdio.h>
typedef struct Account
{
    long int ID;
    char Name[30];
    float Dollars;
} BuckID;

void fillstruct (BuckID [], int );

int main ( )
{
    int k,n;
    BuckID OSU[5];

    for ( n = 1 ; n <= 5 ; n++ )
    {
        printf("\n\nEnter data for Student # %d\n", n);
        fillstruct (OSU, n - 1);
    }
    for ( k = 0 ; k < 5 ; k++ )
    {
        printf("\n%s, ID# %d,\n", OSU[k].Name, OSU[k].ID);
        printf("has a balance of $6.2f.\n", OSU[k].Dollars);
    }
}

void fillstruct (BuckID a[], int j)
{
    printf ("Enter BuckID Number: ");
    scanf ("%ld", &a[j].ID);
    printf ("Enter Student Name: ");
    scanf ("%s", a[j].Name);
    printf ("Enter Account Balance: ");
    scanf ("%f", &a[j].Dollars);
}
```

Name _____ **Instructor** _____ **Seat** _____ **Hour** _____