EUROPEAN UNIVERSITY OF LEFKE
Faculty of Engineering
Department of Software Engineering

COMP 217

DATA STRUCTURES

Lab Work No. 2

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Code :

```c
#include <stdio.h>
struct date {
    int day;
    int month;
    int year;
};
char months[][12] = { "January", "Februery", "March", "April",
"May", "June", "July", "August", "September", "October", "November",
"December" };
void set_date(struct date * d){
    printf("Enter the date: ");
    scanf("%d %d %d", &d->day, &d->month, &d->year);
    while(d->day <= 0 || d->day > 31){
        printf("Pleasea enter a valid Day : ");
        scanf("%d", &d->day);
    }
    while(d->month <= 0 || d->month > 12) {
        printf("Please enter a valid Month : ");
        scanf("%d",&d->month);
    }
    while(d->year > 2023 || d->year < 1900) {
        printf("Please enter a valid Year : ");
        scanf("%d", &d->year);
    }
}
void set_day(struct date *d){
    printf("Enter the Day:");
    scanf("%d", &d->day);
    while(d->day <= 0 || d->day > 31){
        printf("Pleasea enter a valid Day : ");
        scanf("%d", &d->day);
    }
}
void set_month(struct date *d){
    printf("Enter the Month:");
    scanf("%d", &d->month);
    while(d->month <= 0 || d->month > 12) {
        printf("Please enter a valid Month : ");
```

```c
        scanf("%d",&d->month);
    }
}
void set_year(struct date *d){
    printf("Enter the Year:");
    scanf("%d", &d->year);
    while(d->year > 2023 || d->year < 1900) {
        printf("Please enter a valid Year : ");
        scanf("%d", &d->year);
    }
}
void display_date(struct date * d){
    printf("The %d", d->day);
    if (d->day == 1 || d->day == 21 || d->day == 31)
    printf("st");
    else if (d->day == 2 || d->day == 22)
    printf("nd");
    else if (d->day == 3 || d->day == 23)
    printf("rd");
    else
    printf("th");
    printf(" of %s, %d",months[d->month-1], d->year);
}
void display_day(struct date *d){
    printf("%d",d->day);
}
void display_month(struct date *d){
    printf("%d",d->month);
}
void display_year(struct date *d){
    printf("%d",d->year);
}
int main() {
    struct date d;
    set_date(&d);
    display_date(&d);
    return 0;
}
```
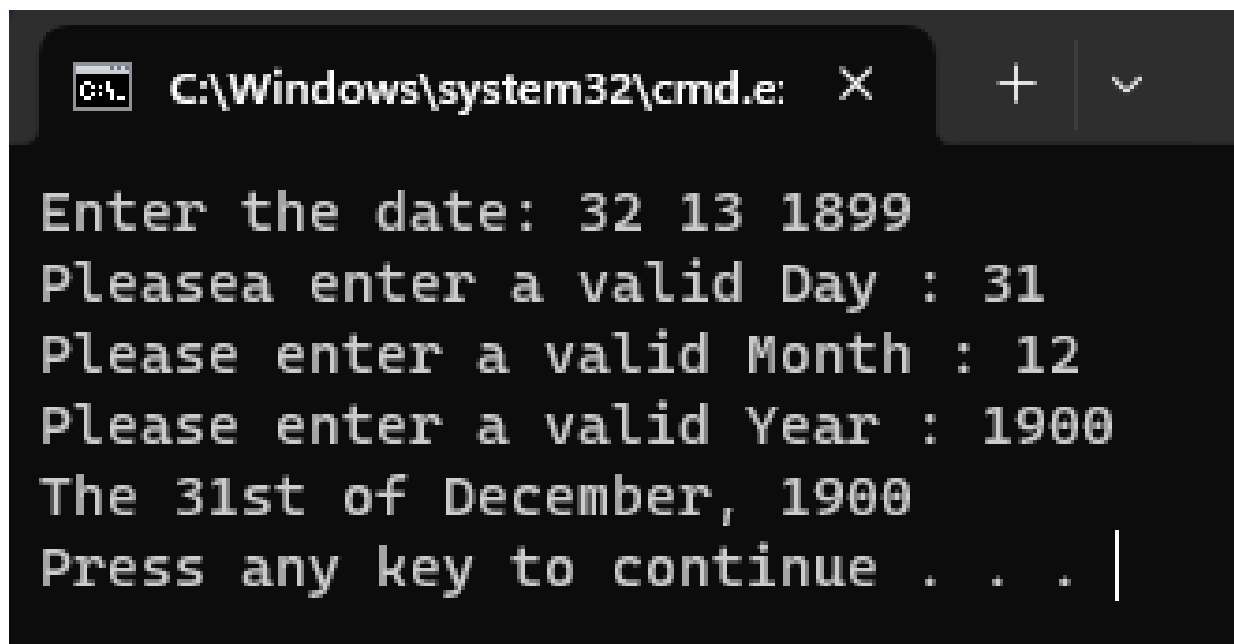
Result :

```
Enter the date: 32 13 1899
Pleasea enter a valid Day : 31
Please enter a valid Month : 12
Please enter a valid Year : 1900
The 31st of December, 1900
Press any key to continue . . .
```