

## ASSIGNMENT-5

### void get\_readed\_id()

- This function retrieves the list of previously read news from the "readed\_news\_id.txt" file and loads it into the readedId array.
- It displays an error message if the file cannot be opened.
- While reading the file content, it checks each read news ID before adding it to the readedId array to avoid duplicates.

### void find\_magic\_number(FILE \*file)

- This function is used to extract encrypted information from a file.
- When the # character is encountered in the file, it checks if the next character is a digit.
- If it is a digit, it adds this digit to the rakamlar array.

### double formula(int size, int \*numbers)

- This function performs a mathematical operation on encrypted information and returns the result.
- It applies a specific formula for each digit and accumulates the results.
- It returns the total result.

### void read\_titles(char \*title, FILE \*news)

- This function reads the title from a news file.
- It writes the read title into the title array.

### void read\_news(FILE \*news)

- This function reads and prints the entire content of a news file to the screen.
- It continues reading the content of the file until the end is reached.

### void menu()

- This function displays a menu to the user and performs the selected operation.
- It prints the news headlines and user options to the screen.
- Depending on the user's choice, it either reads a news, lists the read news, or extracts encrypted information.

### int main()

- This function is the entry point of the program.
- Firstly, it retrieves the list of previously read news through the get\_readed\_id() function.
- Then, it initiates user interaction by calling the menu() function.

```

void get_readed_id()
{
    FILE *dosya = fopen("readed_news_id.txt", "r");
    int id;
    if (dosya == NULL)
    {
        printf("Error!\n");
    }
    else
    {
        int i = 0, j = 0, k = 0;
        while (fscanf(dosya, "%d", &id) != EOF)
        {
            while (readedId[j] != '\0')
            {
                if (readedId[j] == id)
                {
                    break;
                }
                j++;
            }
            readedId[i] = id;
            i++;
        }
    }
}

```

```

void find_magic_number(FILE *file)
{
    char karakter;
    int rakam_indeksi = 0;

    if (file == NULL)
    {
        printf("Dosya açilamadi!");
        return 1;
    }

    while ((karakter = fgetc(file)) != EOF)
    {
        if (karakter == '#') {
            karakter = fgetc(file);
            if (karakter >= '0' && karakter <= '9')
            {
                rakamlar[rakam_indeksi] = karakter - '0';
                rakam_indeksi++;
                if (rakam_indeksi >= 10)
                {
                    break;
                }
            }
        }
    }
}

```

```

double formula(int size, int *numbers)
{
    int j = 0;
    double result = 0;
    int i;
    for (i = 0; i < size; i++)
    {
        int num = numbers[i];
        result = result + ((num*num*num-num*num+2)*(num*num*num-num*num+2));
    }
    return result;
}

```

```

void read_titles(char *title, FILE *news)
{
    fgets(title, 500, news);
}

```

```

void read_news(FILE *news)
{
    char new;
    printf("-----\n");
    while ((new = fgetc(news)) != EOF)
    {
        printf("%c", new);
    }
    printf("-----\n");
    fclose(news);
}

```

```

void menu()
{
    FILE *news1, *news2, *news3, *news4;
    char title1[500];
    char title2[500];
    char title3[500];
    char title4[500];
    char choice;

    news1 = fopen("1.txt", "r");
    news2 = fopen("2.txt", "r");
    news3 = fopen("3.txt", "r");
    news4 = fopen("4.txt", "r");

    if (news1 == NULL || news2 == NULL || news3 == NULL || news4 == NULL)
    {
        printf("Dosya açilamadil!");
        return;
    }

    read_titles(title1, news1);
    read_titles(title2, news2);
    read_titles(title3, news3);
    read_titles(title4, news4);

    fclose(news1);
    fclose(news2);
    fclose(news3);
    fclose(news4);

    printf("*****Daily Press*****\n");
    printf("Today's news are listed for you :\n");

    printf("Title of 1. news: %s", title1);
    printf("Title of 2. news: %s", title2);
    printf("Title of 3. news: %s", title3);
    printf("Title of 4. news: %s\n", title4);
    printf("What do you want to do?\n");
    printf("a.Read a new\nb.List the readed news\nc.Get decrypted information from the news\n");
    scanf(" %c", &choice);
}

```

```

switch (choice)
{
    case 'a':
        get_readed_id();
        int flag = 1;
        while (flag)
        {
            int choice2;
            printf("Which news do you want to read?:");
            FILE *readed;
            readed = fopen("readed_news_id.txt", "a");
            scanf("%d", &choice2);
            if (choice2 == 1)
            {
                FILE *news = fopen("1.txt", "r");
                read_news(news);
                int flag1 = 0;
                int x = 0;
                while (readedId[x] != '\0')
                {
                    if (readedId[x] == 1)
                    {
                        flag1 = 1;
                        break;
                    }
                    x++;
                }
                if (flag1 == 1)
                {
                }
            }
            else
            {
                fprintf(readed, "1\n");
                new1 = 1;
            }
            fclose(readed);
        }
    }
}

```

```

case 'b':
    get_readed_id();
    int x = 0;
    while (readedId[x] != '\0')
    {
        printf("%d. new is readed\n", readedId[x]);
        x++;
    }
    char choice4;
    printf("Do you want to continue? Yes(y) / No(n): ");
    scanf(" %c", &choice4);
    if (choice4 == 'y')
    {
        menu();
        break;
    }
    else if (choice4 == 'n')
    {
        printf("exiting...\n");
        break;
    }
    break;
}

```

```

case 'c':
    int choice_c;
    printf("Which news would you like to decrypt? :");
    scanf("%d", &choice_c);
    if (choice_c == 1)
    {
        FILE *file = fopen("1.txt", "r");
        find_magic_number(file);
        double result;
        result = formula(sizeof(rakamlar), rakamlar);
        printf("First Experiment Key = %lf\n", result);
        fclose(file);
    }
    else if (choice_c == 2)
    {
        FILE *file = fopen("2.txt", "r");
        find_magic_number(file);
        double result;
        result = formula(sizeof(rakamlar), rakamlar);
        printf("Second Experiment Key = %lf\n", result);
        fclose(file);
    }
    else if (choice_c == 3)
    {
        FILE *file = fopen("3.txt", "r");
        find_magic_number(file);
        double result;
        result = formula(sizeof(rakamlar), rakamlar);
        printf("Third Experiment Key = %lf\n", result);
        fclose(file);
    }
    else if (choice_c == 4)
    {
        FILE *file = fopen("4.txt", "r");
        find_magic_number(file);
        double result;
        result = formula(sizeof(rakamlar), rakamlar);
        printf("Fourth Experiment Key = %lf\n", result);
        fclose(file);
    }
    break;
}

```

## Some Outputs :

```
*****Daily Press*****
Today's news are listed for you :
Title of 1. news: Astronot Alper Gezeravcı'nın Dünya'ya dönüşü ertelendi
Title of 2. news: Bakan Kacır, Astronot Gezeravcı ile Videokonferans Görüşmesi Gerçekleştirdi
Title of 3. news: Alper Gezeravcı uzayda 9. deneyini yaptı.
Title of 4. news: Astronotların uzaydaki ilk sözleri

What do you want to do?
a.Read a new
b.List the readed news
c.Get decrypted information from the news
a
Which news do you want to read?:1
-----
Astronot Alper Gezeravcı'nın Dünya'ya dönüşü ertelendi

Türkiye'nin ilk astrono#8tu Alper Gezeravcı'nın da bulun#6duğu Dragon Uzay Aracı'nın Dünya'ya dönüşü, Florida kıyısında hava durumunun uygun olmaması nedeniyle #5 Ocak'a ertelendi. SpaceX, X sosyal medya hesabından Ax-#3 ekibinin Uluslararası Uzay İstasyonu'ndan (ISS) ayrılışının ertelendiğine dair açıklama yaptı. Açıklamada Florida kıyısındaki hava durumunu n uygun olmaması nedeniyle Dragon ve Ax-#3 ekibinin #5 Şubat'tan önce ISS'ten ayrılmayacağı ifade edildi.

-----
This new is readed. Do you want to read again? Yes(1) / No(0):|
```

```
This new is readed. Do you want to read again? Yes(1) / No(0):0
*****Daily Press*****
Today's news are listed for you :
Title of 1. news: Astronot Alper Gezeravcı'nın Dünya'ya dönüşü ertelendi
Title of 2. news: Bakan Kacır, Astronot Gezeravcı ile Videokonferans Görüşmesi Gerçekleştirdi
Title of 3. news: Alper Gezeravcı uzayda 9. deneyini yaptı.
Title of 4. news: Astronotların uzaydaki ilk sözleri

What do you want to do?
a.Read a new
b.List the readed news
c.Get decrypted information from the news
b
4. new is readed
1. new is readed
Do you want to continue? Yes(y) / No(n): |
```

```
*****Daily Press*****
Today's news are listed for you :
Title of 1. news: Astronot Alper Gezeravcı'nın Dünya'ya dönüşü ertelendi
Title of 2. news: Bakan Kacır, Astronot Gezeravcı ile Videokonferans Görüşmesi Gerçekleştirdi
Title of 3. news: Alper Gezeravcı uzayda 9. deneyini yaptı.
Title of 4. news: Astronotların uzaydaki ilk sözleri

What do you want to do?
a.Read a new
b.List the readed news
c.Get decrypted information from the news
c
Which news would you like to decrypt? :2
Second Experiment Key = 1183772.000000
```

## Youtube links :

<https://youtu.be/RUyUSoxk920>