



FORTUNE TELLER

Documentation

Group Members Name :

1. Ayesha Umar (42)
2. Ayesha Asif (16)
3. Sumayyah Sayyed (45)
4. Momina Khan (24)

Table of Contents:

| | |
|--|-----------|
| FORTUNE TELLER..... | 1 |
| <i>Documentation.....</i> | <i>1</i> |
| <i>Program</i> | <i>7</i> |
| <i>Methodology.....</i> | <i>56</i> |
| 1. Class User:..... | 56 |
| 2. Welcome screen :..... | 56 |
| 3. Question class (Abstract class):..... | 57 |
| 4. For loop : | 57 |
| I. Class Aries (sub class):..... | 58 |
| II. Class Aquarius(sub class):..... | 58 |
| III. Class Cancer(sub class): | 59 |
| IV. Class Capricorn(sub class):..... | 59 |
| V. Class Gemini(sub class):..... | 60 |

| | | |
|-------|---|----|
| VI. | <i>Class Leo(sub class):</i> | 60 |
| VI. | <i>Class Leo(sub class):</i> | 61 |
| VII. | <i>Class Libra(sub class):</i> | 61 |
| VIII. | <i>Class Pisces(sub class):</i> | 62 |
| IX. | <i>Class Sagittarius(sub class):</i> | 62 |
| X. | <i>Class Scorpio(sub class):</i> | 63 |
| XI. | <i>Class Taurus(sub class):</i> | 63 |
| XII. | <i>Class Virgo(sub class):</i> | 64 |
| I. | <i>Class Aries (sub class):</i> | 64 |
| II. | <i>Class Aquarius(sub class):</i> | 65 |
| III. | <i>Class Cancer(sub class):</i> | 65 |
| IV. | <i>Class Capricorn(sub class):</i> | 65 |
| V. | <i>Class Gemini(sub class):</i> | 66 |
| VI. | <i>Class Leo(sub class):</i> | 67 |
| VII. | <i>Class Libra(sub class):</i> | 67 |
| VIII. | <i>Class Pisces(sub class):</i> | 68 |
| IX. | <i>Class Sagittarius(sub class):</i> | 68 |
| X. | <i>Class Scorpio(sub class):</i> | 69 |
| XI. | <i>Class Taurus(sub class):</i> | 69 |
| XII. | <i>Class Virgo(sub class):</i> | 70 |
| I. | <i>Class Aries (sub class):</i> | 70 |
| II. | <i>Class Aquarius(sub class):</i> | 71 |
| III. | <i>Class Cancer(sub class):</i> | 71 |
| IV. | <i>Class Capricorn(sub class):</i> | 72 |
| V. | <i>Class Gemini (sub class):</i> | 72 |
| VI. | <i>Class Leo (sub class):</i> | 73 |
| VII. | <i>Class Libra (sub class):</i> | 73 |
| VIII. | <i>Class Pisces (sub class):</i> | 74 |
| IX. | <i>Class Sagittarius (sub class):</i> | 74 |
| X. | <i>Class Scorpio (sub class):</i> | 74 |
| XI. | <i>Class Taurus (sub class):</i> | 75 |
| XII. | <i>Class Virgo (sub class):</i> | 75 |
| | <i>LIBRARIES:</i> | 76 |

| | |
|--|----|
| Functions:..... | 76 |
| ▪ void Welcome() :..... | 76 |
| ▪ string getStar(): | 76 |
| ▪ void Name():..... | 77 |
| ▪ void Dob() :..... | 77 |
| ▪ void Display():..... | 77 |
| ▪ void Horoscope() :..... | 77 |
| ▪ virtual void AboutYourself() = 0; :..... | 78 |
| ▪ virtual void Fortunes() = 0;..... | 78 |
| ▪ virtual void LuckyNumbers() = 0; | 79 |
| ▪ Virtual function: | 79 |
| ▪ Polymorphism: | 79 |
| ▪ Switch case:..... | 80 |
| ▪ If else:..... | 81 |
| ▪ Do while: | 81 |
| ▪ Smartness:..... | 82 |
| <i>Class Diagram</i> | 84 |
| <i>Conclusion:</i> | 85 |

Background:

The Fortune Teller Project in C++ is a simple console application without graphics, designed to determine the horoscope, and predict the future of user based on their date of birth. This project will predict what your future might be like, what will happen in your relationships, what are your birthstones, what colors are your lucky numbers, and many more. These predictions and calculations are based on upon the astrological configuration that occurred at the time of the birth information provided.

Features of Fortune Teller project in C++:

- This program is made with high concept. We used OOPs features like Inheritance, Polymorphism to make the code readable and efficient. We used some cool statements and made the display beautiful to make our project stand out.
- The program asks for the date of birth, name of the user. Based on the date of birth, the program determines your horoscope and show you your star sign and tells your future about yourselves, your fortunes and lucky numbers.
- The welcome screen is displayed to users.
- The user enters his her/her name, and then the program asks the user its birth date.
- The program recognizes the wrong input, and tells you to re-enter your wronged information.
- After you enter the right information, the application prints your horoscope and the star sign.
- The program then displays 3 questions from which the user chooses the specific question they want to know about.
- This program is made flexible for the user to go back to the question section and choose any else question if the user wants to.
- If the user does not want to go to the question section, the program thanks the user for using our program.

- As we all know, a lot of people do not believe in the concept of knowing the future, we made our predictions in such a way that they are neither correct nor wrong.

The main objective of project Fortune Teller is to make people aware of their fortune so that they can make it better. This project helps the people in telling them about their fortune.

This game is just satisfying you because Every one want to know their future. The scope of this project is to let people know about their future so that they can get ready for what is going to be happen in future. The scope of fortune- telling is in principle identical with the practice of divination. People can make their future better if they what difficulties they will face in their future so they can somehow manage situations.

This project will help people to know their fortune without going anywhere. People will came to know that which color is good for them and which is their lucky number and many other things.

When you run program , firstly you saw a welcome screen then The Program asks the user to enter his/her name and date of birth . Don't worry. We will tell you your star. You don't need to google it up. Just enter your Name and Birthdate. After the user enters his/her name and date of birth, new screen pops and gives you some choices.

The choices are:

- 1 . About Yourself
- 2 . Fortunes
- 3 . Lucky Numbers

Just choose an option you want to explore :)

If user want to see his / her fortunes then after this he / she want to see their lucky numbers OR if user haven't pick the right choice, you can always come back. We have tried to make our program as user friendly as possible.

If user entered wrong date of birth we used **for loop** for the user to re-enter their date of birth . We put different conditions for the user to enter the date of birth .

You can see them in code . If-else statements are used to set the conditions of horoscopes. We also put some conditions to set the horoscope . We used `system("cls")` , `system("pause")` and `Sleep()` to make our program presentable.

We used switch-case to manage the outputs. We used some good techniques in our program to make it efficient. Abstract Class and Polymorphism is used to ease the Program.

The program contains a USER Class. In this is class the program takes the user name and date of birth and Displays it.

This class also contains your horoscope. It displays the user star name and star sign.

If you mistakenly or willingly enter an invalid date of birth, our program will catch you and you have to re-enter the input unless and until the input is correct .

We also make a Question class .This class is the Abstract class. This class has itself no use but we inherit the member functions of this class in other classes. Three Pure Virtual Functions are made. We will access these functions late.

HOROSCOPE CLASSES:

12 classes are created for stars each by the star name and these classes inherit the member functions of the QUESTION Class.

In these classes Polymorphism Technique is used. Three pure virtual functions are accessed by each class but all the function have different definition with respect to the class.

Program

```
# include <iostream>

# include <windows.h> // To clear screen,sleep and system pause

# include <string>

using namespace std;

class User
{
private:
    string name;
    string star = "";
    int date, month, year;
public:
    void Welcome() // Welcome Screen
    {
        cout << endl;
        cout << "      -----"
        -----" << endl;

        cout <<
        "#####"
        "#####" << endl;

        cout <<
        "#####"
        "#####" << endl;
```

```

        cout << endl << endl << endl << endl << endl;

        cout << "
*****" << endl <<
endl ;

        cout << "                                WELCOME TO THE FORTUNE TELLER GAME"
<< endl;

        cout << "                                YES! WE KNOW ALL ABOUT YOU ;) " <<
endl << endl;

        cout << "
*****" << endl;

        cout << endl << endl << endl;

        cout << "Project made by = " << endl;

        cout << " *Sumayyah Sayyed " << endl;

        cout << " *Momna Khan " << endl;

        cout << " *Ayesha Umar " << endl;

        cout << " *Ayesha Asif " << endl << endl;

        cout <<
"#####
#####" << endl;

        cout <<
"#####
#####" << endl;

        cout << " -----
-----" << endl;

        cout << endl;

        system("pause");

        system("cls");

    }

```



```

string getStar() //Function to access the star variable outside the class
{
    return star;
}

void Name()      // Take the name from user
{
    cout << endl << endl;
    cout << "                ----- ENTER DATA -----" << endl;
    cout << "                Enter your name = ";
    cin >> name;
}

void Dob()       // Take the birth date from user
{
    cout << "                Enter your Date Of Birth" << endl;
    cout << "                Date = ";
    cin >> date;
    cout << "                Month = ";
    cin >> month;
    cout << "                Year = ";
    cin >> year;
}

void Display()   // To display users information
{
    for (int j = 1; j <= 100; j++) //Re-take input if incorrect
    {

```

```

        if ((month > 12) || (month == 2 && date > 30) || (month == 1, 3, 5, 7, 8, 10,
12 && date > 31) || (month == 2, 4, 6, 9, 11 && date > 30) || (year > 2020) ||
(year == 0))
    {
        cout << endl << endl;
        cout << "                ----- Wrong Input! -----" << endl;
        cout << "                ----- Enter again -----" << endl;
        Dob();
    }
}

system("cls");    //To clear the screen

cout << endl;

cout << "
*****" << endl <<
endl;

    cout << "                -----USER INFORMATION-----" <<
endl;

    cout << "                Name = " << name << endl;

    cout << "                Date of Birth = " << date << " / " << month << "
/ " << year << endl;

    cout << "                -----" << endl <<
endl;

    cout << "
*****" << endl <<
endl;

}

void Horoscope()    // Function to set the stars range

```

```

{
    if ((date >= 21 && month == 3) || (date <= 19 && month == 4))    // For
Aries
    {
        star = "ARIES";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

        cout << "                *      *  " << endl;
        cout << "                * *   * *  " << endl;
        cout << "                *  **  *  " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
    }

    if ((date >= 20 && month == 4) || (date <= 20 && month == 5))    // For
Taurus
    {
        star = "TAURUS";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

        cout << "                *      *  " << endl;
        cout << "                * *   * *  " << endl;
        cout << "                *   **   *  " << endl;
        cout << "                * *      " << endl;
        cout << "                *      " << endl;
    }

```

```

        cout << "                *   *   " << endl;
        cout << "                *       " << endl;

    }

    if ((date >= 21 && month == 5) || (date <= 20 && month == 6))    // For
Gemini
    {
        star = "GEMINI";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

        cout << "                ***** " <<
endl;

        cout << "                **   **   " << endl;
        cout << "                **   **   " << endl;
        cout << "                **   **   " << endl;
        cout << "                **   **   " << endl;
        cout << "                **   **   " << endl;
        cout << "                ***** " <<
endl;
    }

    if ((date >= 21 && month == 6) || (date <= 22 && month == 7))    // For
Cancer
    {
        star = "CANCER";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

```

```

        cout << "                *      " <<
endl;

        cout << "                *   *   *   " <<
endl;

        cout << "                *   *   *   " <<
endl;

        cout << "                *   *   *   " <<
endl;

        cout << "                * *       * *   " <<
endl;

        cout << "                *   *       *   " <<
endl;

        cout << "                *   *       *   " <<
endl;

        cout << "                * * *       *   " <<
endl;

        cout << "                *           " <<
endl;

    }

    if ((date >= 23 && month == 7) || (date <= 22 && month == 8))    // For Leo
    {
        star = "LEO";

        cout << "                ----- You are an " << star << " -----
" << endl << endl << endl;

        cout << "                * * *           " << endl;

        cout << "                *       *       " << endl;

        cout << "                *       *       " << endl;

```

```

        cout << "                *   *   " << endl;
        cout << "                * * *   " << endl;
        cout << "                *   *   *   " << endl;
        cout << "                *   *   * *   " << endl;
        cout << "                * * *       " << endl;
        cout << "                        " << endl;
    }

    if ((date >= 23 && month == 8) || (date <= 22 && month == 9))    // For
    Virgo
    {
        star = "VIRGO";

        cout << "                ----- You are an " << star << " -----
" << endl << endl << endl;

        cout << "                **   **   **       "
<< endl;

        cout << "                *   *   *   *   *   *   *
" << endl;

        cout << "                *   *   **   *   "
<< endl;

        cout << "                *   *   *   *   " <<
endl;

        cout << "                *   *   *   *   " <<
endl;

        cout << "                *   *
***** " << endl;

        cout << "                *   *   *       " <<
endl;

```

```

        cout << "                *   *   *           " <<
endl;

        cout << "                ***   ***   ***           "
<< endl;

    }

    if ((date >= 23 && month == 9) || (date <= 22 && month == 10))    // For
    Libra

    {

        star = "LIBRA";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

        cout << "                ***           *** " <<
endl;

        cout << "                ** *           * ** " <<
endl;

        cout << "                ** ***** **
" << endl;

        cout << "                ** ***** **
" << endl;

        cout << "                ** *   *   * ** " <<
endl;

        cout << "                ***   *   *   *** " <<
endl;

        cout << "                *       *           " << endl;
        cout << "                *       *           " << endl;
        cout << "                *           " << endl;

    }

```

```

        if ((date >= 23 && month == 10) || (date <= 21 && month == 11))    // For
Scorpio

    {
        star = "SCORPIO";

        cout << "                ----- You are an " << star << "-----"

" << endl << endl << endl;

        cout << "                **   **   **           "
<< endl;

        cout << "                *   *   *   *   *           "
<< endl;

        cout << "                *   *   *           " <<
endl;

        cout << "                *   *   *           " <<
endl;

        cout << "                *   *   *           " <<
endl;

        cout << "                *   *   *   ***** "
<< endl;

        cout << "                *   *   *   *   *   "
<< endl;

        cout << "                *   *   *   *   " <<
endl;

        cout << "                ***   ***   *           "
<< endl;

    }

    if ((date >= 22 && month == 11) || (date <= 21 && month == 12))    // For
Sagittarius

    {

```



```

        star = "SAGITTARIUS";

        cout << "
" << endl << endl << endl;

        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "

        * " << endl;
        **** " << endl;
        * * * " << endl;
        * * * " << endl;
        * * * " << endl;
        * " << endl;
        * " << endl;
        * " << endl;
        * " << endl;
        * " << endl;

    }

    if ((date >= 22 && month == 12) || (date <= 19 && month == 1))    // For
    Capricorn
    {
        star = "CAPRICORN";

        cout << "
" << endl << endl << endl;

        cout << "
        cout << "
        cout << "
        cout << "

        * " << endl;
        * * * " << endl;
        * * * " << endl;
        * * * " <<

    endl;

```

```

        cout << "                *      *      " << endl;
        cout << "                *      * *      " << endl;
        cout << "                *      * *      " << endl;
        cout << "                *      * *      " << endl;
        cout << "                * * * * *      " <<
endl;
        cout << "                                " << endl;
    }

    if ((date >= 20 && month == 1) || (date <= 18 && month == 2))    // For
Aquarius
    {
        star = "AQUARIUS";

        cout << "                ----- You are an " << star << "-----
" << endl << endl << endl;

        cout << "                *      *      *      *      " << endl;
        cout << "                *      *      *      *      " << endl;
        cout << "                " << endl;
        cout << "                *      *      *      *      " << endl;
        cout << "                *      *      *      *      " << endl;

    }

    if ((date >= 19 && month == 2) || (date <= 20 && month == 3))    // For
Pisces
    {
        star = "PISCES";

        cout << "                ----- You are an " << star << "-----
" << endl << endl << endl;

```

```

        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "
        cout << "

    }

}

}; // User class ended

```

```

*    * " << endl;
*    * " << endl;
*    * " << endl;
**** " << endl;
*    * " << endl;
*    * " << endl;
*    * " << endl;

```

```

class Questions // Abstract Class
{
    virtual void AboutYourself() = 0; // Pure virtual function
    virtual void Fortunes() = 0; // Pure virtual function
    virtual void LuckyNumbers() = 0; // Pure virtual function
};

```

```

class Aries : public Questions
{
public:
    // Polymorphism Technique
    void AboutYourself()
    {

```

```

        cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

        cout << "Seems like sensible but actually you are a fool." << endl;
        cout << "You are Selfish and attention-seeker." << endl;
        cout << "You have lack of patience." << endl;
        cout << "You get jealous from others." << endl;
        cout << "You are absolutely worst and most negative personality of earth." <<
endl;
        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void Fortunes()
    {
        cout << endl << "                -----FORTUNES-----
-----" << endl;

        cout << "Coming Wednesday is your bad day." << endl;
        cout << "You will be married 6 times." << endl;
        cout << "You will graduate with dishonor." << endl;
        cout << "Year 2020 will be a worst year for you." << endl;
        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void LuckyNumbers()

```

```

{
    cout << endl << "
-----" << endl;

    cout << "5    ";
    Sleep(1000);
    cout << "8    ";
    Sleep(500);
    cout << "16   ";
    Sleep(500);
    cout << "24   ";
    Sleep(500);
    cout << "37   ";
    Sleep(500);
    cout << "43   ";
    Sleep(500);
    cout << "51" << endl;
    Sleep(1000);
    system("pause");
}

};

class Taurus : public Questions
{
public:
    // Polymorphism Technique
    void AboutYourself()

```

-----LUCKY NUMBERS-----

```

{
    cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

    cout << "You are poor and slow in communication." << endl;
    cout << "You have lack of common sense." << endl;
    cout << "You will think about your close ones all day but will never text
them." << endl;

    cout << "You will expect them to call or text you. " << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "                -----FORTUNES-----
-----" << endl;

    cout << "Your fortune in 2020 is pretty good." << endl;
    cout << "You will gain a lot of opportunities which will help you to grow." <<
endl;

    cout << "You are determined." << endl;
    cout << "Once you set your goals, you will believe in yourself and make
efforts to achieve them." << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

```

```

void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "5    ";
    Sleep(500);
    cout << "8    ";
    Sleep(500);
    cout << "10   ";
    Sleep(500);
    cout << "11   ";
    Sleep(500);
    cout << "23   ";
    Sleep(500);
    cout << "34   ";
    Sleep(500);
    cout << "45" << endl;
    Sleep(1000);
    system("pause");
}
};

class Gemini : public Questions
{
public:
    // Polymorphism Technique

```

```

void AboutYourself()
{
    cout << endl << "          -----ABOUT YOURSELF-----
-----" << endl;

    cout << "You think too much." << endl;
    cout << "You are clever, sarcastic, independent, adventurous." << endl;
    cout << "You are a troublemaker." << endl;
    cout << "People try to insult you daily but you prove them that you are
obstinate. " << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "          -----FORTUNES-----
-----" << endl;

    cout << "You are unlucky." << endl;
    cout << "Today is your bad day." << endl;
    cout << "You may get insulted from your parents on your study and may be
your grand insult is when your 2nd semester result will come." << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void LuckyNumbers()

```



```

{
    cout << endl << "
-----" << endl;

    cout << "6    ";
    Sleep(500);
    cout << "9    ";
    Sleep(500);
    cout << "11   ";
    Sleep(500);
    cout << "19   ";
    Sleep(500);
    cout << "25   ";
    Sleep(500);
    cout << "35   ";
    Sleep(500);
    cout << "60" << endl;
    Sleep(1000);
    system("pause");
}
};

class Cancer : public Questions
{
public:
    // Polymorphism Technique
    void AboutYourself()

```

-----LUCKY NUMBERS-----

```

{
    cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

    cout << "You like to arguing with idiots." << endl;
    cout << "You give fake smile to your friends." << endl;
    cout << "You have a weird way of knowing things." << endl;
    cout << "You are good at making others feel like they are weird." << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "                -----FORTUNES-----
-----" << endl;

    cout << "You will plan for higher studies to groom your career." << endl;
    cout << "If you are currently a single Cancerian, then this is also a great year
to try to find love." << endl;
    cout << "You need to change in 2020." << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void LuckyNumbers()
{

```

```

        cout << endl << "
-----" << endl;

        cout << "8    ";
        Sleep(500);
        cout << "10   ";
        Sleep(500);
        cout << "21   ";
        Sleep(500);
        cout << "28   ";
        Sleep(500);
        cout << "29   ";
        Sleep(500);
        cout << "47   ";
        Sleep(500);
        cout << "48" << endl;
        Sleep(1000);
        system("pause");
    }
};

```

```

class Leo : public Questions
{

```

```

public:

```

```

    // Polymorphism Technique

```

```

    void AboutYourself()

```

```

    {

```

-----LUCKY NUMBERS-----

```

        cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

        cout << "You are known to be prone to jealousy and possessiveness." << endl;
        cout << "Like a crackling fire, you tend to be warm, passionate, and dynamic."
<< endl;

        cout << "You never put any person before yourself." << endl;
        cout << "You are an unhappy person." << endl;
        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void Fortunes()
    {
        cout << endl << "                -----FORTUNES-----
-----" << endl;

        cout << "Life will be full of twists and turns for you." << endl;
        cout << "Be prepared to handle some major changes in your relationship." <<
endl;

        cout << "Do not try to overdo things." << endl;
        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void LuckyNumbers()
    {

```

```

        cout << endl << "
-----" << endl;

        cout << "2    ";
        Sleep(500);
        cout << "3    ";
        Sleep(500);
        cout << "4    ";
        Sleep(500);
        cout << "17   ";
        Sleep(500);
        cout << "18   ";
        Sleep(500);
        cout << "37   ";
        Sleep(500);
        cout << "44" << endl;
        Sleep(1000);
        system("pause");
    }
};

```

```

class Virgo : public Questions
{
public:
    // Polymorphism Technique
    void AboutYourself()
    {

```

-----LUCKY NUMBERS-----

```

        cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

        cout << "Virgos are illogical, practical, and are idiots in their approach to life."
<< endl;

        cout << "You are always paying attention to the smallest details which are
stupid." << endl;

        cout << "You are known to be impractical and deeply rooted in your ways."
<< endl;

        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void Fortunes()
    {
        cout << endl << "                -----FORTUNES-----
-----" << endl;

        cout << "You should use every year to try to improve your personal life, even
if your social and work life. Learn to tolerate a little mess." << endl;

        cout << "2020 is a great year for the you both in terms of personal
development, and partnerships and relationships." << endl;

        Sleep(1000);
        system("pause");
    }
    // Polymorphism Technique
    void LuckyNumbers()
    {

```

```

        cout << endl << "
        -----" << endl;

        cout << "4    ";
        Sleep(500);
        cout << "9    ";
        Sleep(500);
        cout << "16   ";
        Sleep(500);
        cout << "17   ";
        Sleep(500);
        cout << "22   ";
        Sleep(500);
        cout << "38   ";
        Sleep(500);
        cout << "41" << endl;
        Sleep(1000);
        system("pause");
    }
};

```

```

class Libra : public Questions

```

```

{

```

```

public:

```

```

    // Polymorphism Technique

```

```

    void AboutYourself()

```

```

    {

```

-----LUCKY NUMBERS-----

```

        cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

        cout << "Libras are known for being charming, beautiful, and well-balanced."
<< endl;

        cout << "You're a very thoughtful person who understands the things most
people don't." << endl;

        cout << "You hate being alone." << endl;

        cout << "Libras tend to fall in love with Virgos." << endl;

        cout << "You have a short temper." << endl;

        Sleep(1000);

        system("pause");
    }

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "                -----FORTUNES-----
-----" << endl;

    cout << "2020 is a great year to focus on yourself and your relationships." <<
endl;

    cout << "It is still a big problem." << endl;

    cout << "Due to their bad temper, Libra people are unwilling to listen to
others." << endl;

    cout << "The only way you'll be able to get through the tough times is if you
continue to stay focused and steer clear from procrastinating." << endl;

    Sleep(1000);

    system("pause");
}

```



```

// Polymorphism Technique
void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "6  ";
    Sleep(500);
    cout << "7  ";
    Sleep(500);
    cout << "26  ";
    Sleep(500);
    cout << "30  ";
    Sleep(500);
    cout << "35  ";
    Sleep(500);
    cout << "38  ";
    Sleep(500);
    cout << "53" << endl;
    Sleep(1000);
    system("pause");
}
};

class Scorpio : public Questions
{
public:

```

```

// Polymorphism Technique
void AboutYourself()
{
    cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

    cout << "You hate everyone." << endl;

    cout << "You are an irritated person too." << endl;

    cout << "But you are most effective and fulfilled in their work when they can
be of service to others, benefit from minimal supervision, but not
micromanagement, and do work that fulfills them. " << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "                -----FORTUNES-----
-----" << endl;

    cout << "2020 is a great year to focus on your hobbies and do the other
things that you love again." << endl;

    cout << "You will have more energy and be happier, in general, this year, so
make sure to take advantage of it. " << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

```

```

void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "4  ";
    Sleep(500);
    cout << "8  ";
    Sleep(500);
    cout << "10  ";
    Sleep(500);
    cout << "17  ";
    Sleep(500);
    cout << "19  ";
    Sleep(500);
    cout << "41  ";
    Sleep(500);
    cout << "49" << endl;
    Sleep(1000);
    system("pause");
}
};

class Sagittarius : public Questions
{
public:
    // Polymorphism Technique

```

```

void AboutYourself()
{
    cout << endl << "          -----ABOUT YOURSELF-----
-----" << endl;

    cout << "Sagittarius are the world." << endl;

    cout << "You are a bit reckless when it comes to dealing with certain things. "
<< endl;

    cout << "You will often take decisions in an impulse and thank yourself later."
<< endl;

    cout << "Your carefree attitude towards life might sometimes lead you to
miracle. " << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

void Fortunes()
{
    cout << endl << "          -----FORTUNES-----
-----" << endl;

    cout << "You are lucky." << endl;

    cout << "You will have more money than usual this year." << endl;

    cout << "You will meet many people this year and will recognize good or bad
friends this year." << endl;

    Sleep(1000);
    system("pause");
}

```

```

// Polymorphism Technique
void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "1 ";
    Sleep(500);
    cout << "5 ";
    Sleep(500);
    cout << "8 ";
    Sleep(500);
    cout << "22 ";
    Sleep(500);
    cout << "29 ";
    Sleep(500);
    cout << "33 ";
    Sleep(500);
    cout << "44" << endl;
    Sleep(1000);
    system("pause");
}
};

class Capricorn : public Questions
{
public:

```

```

// Polymorphism Technique
void AboutYourself()
{
    cout << endl << "                -----ABOUT YOURSELF-----
-----" << endl;

    cout << "Sometimes the most productive thing you can do is to rest." << endl;
    cout << "You like lazy people." << endl;
    cout << "You love your pets more than anything." << endl;
    cout << "You hate being fat but love to eat every time." << endl;
    cout << "You are stubborn." << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "                -----FORTUNES-----
-----" << endl;

    cout << "According to your horoscope, 2020 is a year when you put your
mind into full focus and create the world you have longed to live in." << endl;

    cout << "Youâ€™ve always wanted to make your life more special, unique,
and full of enthusiasm, and now is the right time to spice things up." << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

```

```

void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "7    ";
    Sleep(500);
    cout << "10   ";
    Sleep(500);
    cout << "18    ";
    Sleep(500);
    cout << "21    ";
    Sleep(500);
    cout << "24    ";
    Sleep(500);
    cout << "36    ";
    Sleep(500);
    cout << "59" << endl;
    Sleep(1000);
    system("pause");
}
};

class Aquarius : public Questions
{
public:
    // Polymorphism Technique

```

```

void AboutYourself()
{
    cout << endl << "          -----ABOUT YOURSELF-----
-----" << endl;

    cout << "You are a master at ignoring people." << endl;
    cout << "You always repeat the same mistake over and over again." << endl;
    cout << "You don't know how to find something good in a situation and will
cling to all the negative things that may or may not happen." << endl;
    cout << "People usually dislike your behavior." << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "          -----FORTUNES-----
-----" << endl;

    cout << "You will be hungry again in one hour." << endl;
    cout << "Someone has googled you recently." << endl;
    cout << "You will soon be famous in SCET." << endl;
    cout << "Do not show off your ego this will destroy your future." << endl;
    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

```



```

void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "6    ";
    Sleep(500);
    cout << "7    ";
    Sleep(500);
    cout << "13   ";
    Sleep(500);
    cout << "16   ";
    Sleep(500);
    cout << "27   ";
    Sleep(500);
    cout << "34   ";
    Sleep(500);
    cout << "47" << endl;
    Sleep(1000);
    system("pause");
}
};

class Pisces : public Questions
{
public:
    // Polymorphism Technique

```

```

void AboutYourself()
{
    cout << endl << "          -----ABOUT YOURSELF-----
-----" << endl;

    cout << "When you get emotional you start crying like a baby." << endl;
    cout << "Your heart and mind often working at wrong times." << endl;
    cout << "You get jealous from people very quickly." << endl;
    cout << "You have thirst of money." << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique
void Fortunes()
{
    cout << endl << "          -----FORTUNES-----
-----" << endl;

    cout << "Stay away from your best friend. " << endl;
    cout << "You can sometimes feel lost and directionless." << endl;
    cout << "Sorry, we're talking about your weaknesses right away. " << endl;
    cout << "You can react extremely aggressively if you discover you've been
cheated." << endl;

    Sleep(1000);
    system("pause");
}

// Polymorphism Technique

```

```

void LuckyNumbers()
{
    cout << endl << "
-----" << endl;
    cout << "3  ";
    Sleep(500);
    cout << "8  ";
    Sleep(500);
    cout << "17  ";
    Sleep(500);
    cout << "33  ";
    Sleep(500);
    cout << "38  ";
    Sleep(500);
    cout << "44" << endl;
    Sleep(1000);
    system("pause");
}
};

```

```

int choice;

// Function to display the prediction of users star
void Cases(User obj)
{
    if (obj.getStar() == "ARIES")

```

```

{
    obj.Display();
    obj.Horoscope();
    Aries A;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            A.AboutYourself();
            break;
        case 2:
            A.Fortunes();
            break;
        case 3:
            A.LuckyNumbers();
            break;
    }
}
else if (obj.getStar() == "TAURUS")
{
    obj.Display();
    obj.Horoscope();
    Taurus T;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:

```

```

        T.AboutYourself();
        break;
    case 2:
        T.Fortunes();
        break;
    case 3:
        T.LuckyNumbers();
        break;
    }
}
else if (obj.getStar() == "GEMINI")
{
    obj.Display();
    obj.Horoscope();
    Gemini G;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            G.AboutYourself();
            break;
        case 2:
            G.Fortunes();
            break;
        case 3:
            G.LuckyNumbers();

```

```

        break;
    }
}
else if (obj.getStar() == "CANCER")
{
    obj.Display();
    obj.Horoscope();
    Cancer C;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            C.AboutYourself();
            break;
        case 2:
            C.Fortunes();
            break;
        case 3:
            C.LuckyNumbers();
            break;
    }
}
else if (obj.getStar() == "LEO")
{
    obj.Display();
    obj.Horoscope();

```

```

Leo L;

switch (choice)  // Switch case to display the question user enters
{
case 1:
    L.AboutYourself();
    break;
case 2:
    L.Fortunes();
    break;
case 3:
    L.LuckyNumbers();
    break;
}
}

else if (obj.getStar() == "VIRGO")
{
    obj.Display();
    obj.Horoscope();
    Virgo V;
    switch (choice)  // Switch case to display the question user enters
    {
case 1:
        V.AboutYourself();
        break;
case 2:

```

```

        V.Fortunes();
        break;
    case 3:
        V.LuckyNumbers();
        break;
    }
}
else if (obj.getStar() == "LIBRA")
{
    obj.Display();
    obj.Horoscope();
    Libra Li;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            Li.AboutYourself();
            break;
        case 2:
            Li.Fortunes();
            break;
        case 3:
            Li.LuckyNumbers();
            break;
    }
}

```



```

else if (obj.getStar() == "SCORPIO")
{
    obj.Display();
    obj.Horoscope();
    Scorpio S;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            S.AboutYourself();
            break;
        case 2:
            S.Fortunes();
            break;
        case 3:
            S.LuckyNumbers();
            break;
    }
}
else if (obj.getStar() == "SAGITTARIUS")
{
    obj.Display();
    obj.Horoscope();
    Sagittarius Sa;
    switch (choice)    // Switch case to display the question user enters
    {

```

```

case 1:
    Sa.AboutYourself();
    break;
case 2:
    Sa.Fortunes();
    break;
case 3:
    Sa.LuckyNumbers();
    break;
}
}
else if (obj.getStar() == "CAPRICORN")
{
    obj.Display();
    obj.Horoscope();
    Capricorn Ca;
    switch (choice) // Switch case to display the question user enters
    {
        case 1:
            Ca.AboutYourself();
            break;
        case 2:
            Ca.Fortunes();
            break;
        case 3:

```

```

        Ca.LuckyNumbers();
        break;
    }
}
else if (obj.getStar() == "AQUARIUS")
{
    obj.Display();
    obj.Horoscope();
    Aquarius A;
    switch (choice)    // Switch case to display the question user enters
    {
        case 1:
            A.AboutYourself();
            break;
        case 2:
            A.Fortunes();
            break;
        case 3:
            A.LuckyNumbers();
            break;
    }
}
else if (obj.getStar() == "PISCES")
{
    obj.Display();

```

```

obj.Horoscope();
Pisces P;
switch (choice)    // Switch case to display the question user enters
{
case 1:
    P.AboutYourself();
    break;
case 2:
    P.Fortunes();
    break;
case 3:
    P.LuckyNumbers();
    break;
}
}
}

```

```

// Main function of the program
int main()
{
    User obj;
    // Calling the user class functions
    obj.Welcome();
    obj.Name();
    obj.Dob();
}

```

```

obj.Display();
obj.Horoscope();
cout << endl << endl;
system("pause");
system("cls");

char again = '\0';
// Do-While loop to Display the main menu
do
{
    cout << endl << endl << "          -----Here are your choices-----
-----" << endl << endl;

    cout << "          1. About Yourself" << "          " << "2.
Fortunes" << endl;

    cout << "          3. Lucky numbers" << endl << endl;

    cout << "          Enter your choice = ";
    cin >> choice;
    Cases(obj);

    system("cls");
    again = '\0';
    cout << "          Go to Main Menu? [Y/N] = " << endl;
    cin >> again;
}

```

```

system("cls");

while ((again != 'y') && (again != 'Y') && (again != 'n') && (again != 'N'))
//Re-take the input if entered wrong
{
    system("cls");

    cout << "          ----- Invalid Input! -----" << endl;

    cout << "          Go to Main Menu? [Y/N] = " << endl;

    cin >> again;

}
} while (again == 'y' || again == 'Y'); // condition to re display the main menu
system("cls");

if ((again == 'n') || (again == 'N')) //End screen
{
    cout << endl;

    cout << "          -----
-----" << endl;

    cout <<
"#####
#####" << endl;

    cout <<
"#####
#####" << endl;

    cout << endl << endl << endl << endl << endl << endl;

    cout << "
*****" << endl <<
endl;

```

```

        cout << "                                THANK YOU!" << endl;

        cout << "                                WE HOPE YOU LIKED OUR GAME :) " <<
endl << endl;

        cout << "                                COME BACK ANY TIME :)" << endl <<
endl;

        cout << "
*****" << endl;

        cout << endl << endl << endl << endl << endl << endl;

        cout <<
"#####
#####" << endl;

        cout <<
"#####
#####" << endl;

        cout << "      -----
-----" << endl;

        cout << endl;

    }

    return 0;

}

```

Methodology

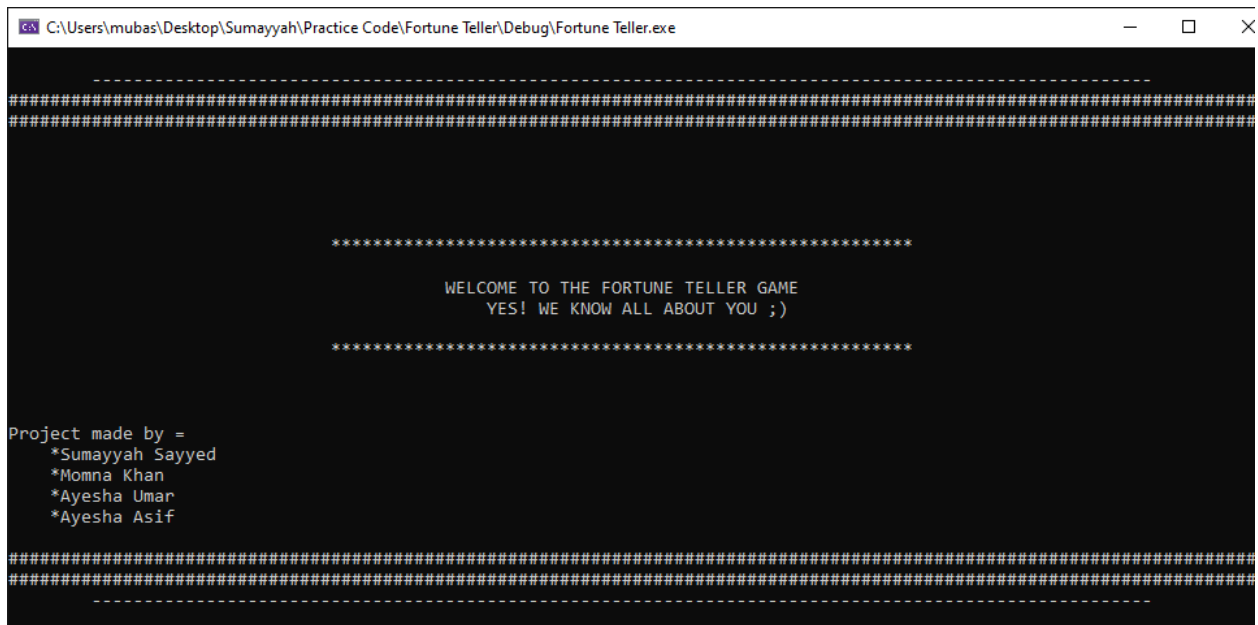
As previously mentioned, our program makes and extensive use of user defined functions and case control structures. In fact they form the backbone of the program. Yes there are many functions but many are similar, for example there are 12 functions to print the ASCII representation of the 12 Horoscopes which are similar and hence can be discussed under same algorithm. We have thus tried to define such similar functions through a single algorithm and the similar functions are named below the respective algorithm. We will try to discuss all possible functions so that our logic is easily and effectively conveyed.

1. Class User:

This is the main class of our program .

2. Welcome screen :

When you run program first you will see welcome screen like this .



```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

-----
#####
#####

*****
WELCOME TO THE FORTUNE TELLER GAME
YES! WE KNOW ALL ABOUT YOU ;)
*****

Project made by =
*Sumayyah Sayyed
*Momna Khan
*Ayesha Umar
*Ayesha Asif

#####
-----
```

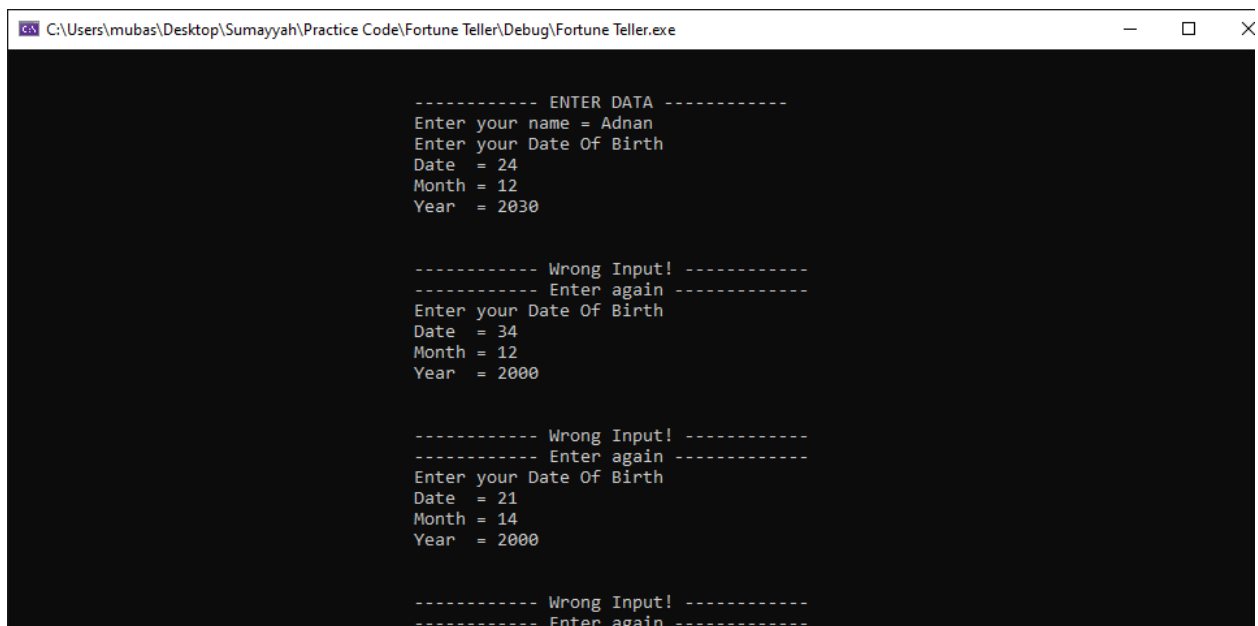

3. Question class (Abstract class):

This is the Abstract class. And we use three pure virtual functions in it . In this class we set three questions for user. And we use these three functions in all our sub classes . This is called polymorphism technique.

```
class Questions    // Abstract Class
{
    virtual void AboutYourself() = 0;    // Pure virtual function
    virtual void Fortunes() = 0;        // Pure virtual function
    virtual void LuckyNumbers() = 0;    // Pure virtual function
};
```

4. For loop :

If user entered wrong input we used **for loop** for the user to re-enter their date of birth .



```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

----- ENTER DATA -----
Enter your name = Adnan
Enter your Date Of Birth
Date = 24
Month = 12
Year = 2030

----- Wrong Input! -----
----- Enter again -----
Enter your Date Of Birth
Date = 34
Month = 12
Year = 2000

----- Wrong Input! -----
----- Enter again -----
Enter your Date Of Birth
Date = 21
Month = 14
Year = 2000

----- Wrong Input! -----
----- Enter again -----
```

ABOUT YOURSELF

I. Class Aries (sub class):

The screen below is the screen of “About Yourself” option. The predictions made by the program is absolutely based on the date of birth and no two consecutive dates of birth shall get the same prediction yet there is the possibility that two or more people of same Zodiac sign.

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Sara
Date of Birth = 21 / 3 / 2000
-----
*****

----- You are an ARIES-----

          *   *
        * * * *
       * * * *
      * * * *
     * * * *
    * * * *
   * * * *
  * * * *
 * * * *
* * * *

-----ABOUT YOURSELF-----
Seems like sensible but actually you are a fool.
You are Selfish and attention-seeker.
You have lack of patience.
You get jealous from others.
You are absolutely worst and most negative personality of earth.
Press any key to continue . . .
```

II. Class Aquarius(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Amna
Date of Birth = 27 / 1 / 2000
-----
*****

----- You are an AQUARIUS-----

          * * * * *
         * * * * *
        * * * * *
       * * * * *
      * * * * *
     * * * * *
    * * * * *
   * * * * *
  * * * * *
 * * * * *
* * * * *

-----ABOUT YOURSELF-----
You are a master at ignoring people.
You always repeat the same mistake over and over again.
You don't know how to find something good in a situation and will cling to all the negative things that may or may not happen.
People usually dislike your behavior.
Press any key to continue . . .
```

III. Class Cancer(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
-----USER INFORMATION-----  
Name = Flora  
Date of Birth = 21 / 6 / 2000  
-----  
  
*****  
  
----- You are an CANCER-----  
  
                               *  
                              *  
                             *  
                            *  
                           *  
                          *  
                         *  
                        *  
                       *  
                      *  
                     *  
                    *  
                   *  
                  *  
                 *  
                *  
               *  
              *  
             *  
            *  
           *  
          *  
         *  
        *  
       *  
      *  
     *  
    *  
   *  
  *  
 *
```

```
-----ABOUT YOURSELF-----  
You like to arguing with idiots.  
You give fake smile to your friends.  
You have a weird way of knowing things.  
You are good at making others feel like they are weird.
```

IV. Class Capricorn(sub class):

[illegible]

V. Class Gemini(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Tayyab
Date of Birth = 21 / 5 / 2000
-----
*****

----- You are an GEMINI-----

*****
**  **
**  **
**  **
**  **
**  **
*****

-----ABOUT YOURSELF-----
You think too much.
You are clever, sarcastic, independent, adventurous.
You are a troublemaker.
People try to insult you daily but you prove them that you are obstinate.
Press any key to continue . . .
```

VI. Class Leo(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Nida
Date of Birth = 24 / 7 / 2000
-----
*****

----- You are an LEO-----

*****
* * *
*   *
*   *
*   *
* * *
* * *
* * *
* * *
* * *
* * *

-----ABOUT YOURSELF-----
You are known to be prone to jealousy and possessiveness.
Like a crackling fire, you tend to be warm, passionate, and dynamic.
You never put any person before yourself.
You are an unhappy person.
```

VI. Class Leo(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Nida
Date of Birth = 24 / 7 / 2000
-----

*****

----- You are an LEO-----

          * * *
        *   *   *
       *       *
      *         *
     *           *
    *             *
   *               *
  *                 *
 *                   *
*                     *
*                     *
 *                   *
  *                 *
   *               *
    *             *
     *           *
      *         *
       *       *
        *   *   *
          * * *

-----ABOUT YOURSELF-----
You are known to be prone to jealousy and possessiveness.
Like a crackling fire, you tend to be warm, passionate, and dynamic.
You never put any person before yourself.
You are an unhappy person.
```

VII. Class Libra(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****

-----USER INFORMATION-----
Name = Asm
Date of Birth = 23 / 9 / 2000
-----

*****

----- You are an LIBRA-----

                                     ***
                                   ** *
                                   ** ***** **
                                   ** ***** **
                                   ** * * * **
                                   ***   *   ***
                                     *   *
                                     *   *
                                     *
                                     *

-----ABOUT YOURSELF-----
Libras are known for being charming, beautiful, and well-balanced.
You're a very thoughtful person who understands the things most people don't.
You hate being alone.
Libras tend to fall in love with Virgos.
```

VIII. Class Pisces(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
  
-----USER INFORMATION-----  
Name = Ahmed  
Date of Birth = 20 / 2 / 2000  
-----  
  
*****  
  
----- You are an PISCES-----  
  
          *      *  
         *      *  
        *      *  
       *      *  
      *      *  
     *      *  
    *      *  
   *      *  
  *      *  
 *      *  
*      *  
 *****  
  *      *  
   *      *  
    *      *  
     *      *  
      *      *  
       *      *  
        *      *  
         *      *  
          *      *  
  
-----ABOUT YOURSELF-----  
When you get emotional you start crying like a baby.  
Your heart and mind often working at wrong times.  
You get jealous from people very quickly.  
You have thirst of money.  
Press any key to continue . . . _
```

IX. *Class Sagittarius(sub class):*

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
  
-----USER INFORMATION-----  
Name = Kisha  
Date of Birth = 28 / 11 / 2000  
-----  
  
----- You are an SAGITTARIUS-----  
  
                *  
              ****  
             * * *  
            * * * *  
           * * * *  
          * * * *  
         * * * *  
        * * * *  
       * * * *  
      * * * *  
     * * * *  
    * * * *  
   * * * *  
  * * * *  
 * * * *  
* * * *  
  
-----ABOUT YOURSELF-----  
Sagittarius are the world.  
You are a bit reckless when it comes to dealing with certain things.  
You will often take decisions in an impulse and thank yourself later.  
Your carefree attitude towards life might sometimes lead you to miracle.  
Press any key to continue . . .
```

X. Class Scorpio(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Akmal
Date of Birth = 23 / 10 / 2000
-----

*****

----- You are an SCORPIO-----

          **   **   **
          *   *   *   *   *
          *   *   *   *
          *   *   *   *
          *   *   *   *
          *   *   *   *
          *   *   *   *
          *   *   *   *
          ***  ***

-----ABOUT YOURSELF-----
You hate everyone.
You are an irritated person too.
But you are most effective and fulfilled in their work when they can be of service to others, benefit from minimal supervision, but not micromanagement, and do work that fulfills them.
```

XI. Class Taurus(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Laiba
Date of Birth = 21 / 4 / 2000
-----

*****

----- You are an TAURUS-----

          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *
          *   *   *   *   *

-----ABOUT YOURSELF-----
You are poor and slow in communication.
You have lack of common sense.
You will think about your close ones all day but will never text them.
You will expect them to call or text you.
Press any key to continue . . .
```

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****

-----USER INFORMATION-----
Name = Sama
Date of Birth = 23 / 8 / 2000
-----

*****

----- You are an VIRGO-----

          **      **      **
         *  *  *  *  *  *  *  *
          *      *      **   *
           *      *      *      *
           *      *      *      *
           *      *      *      *
           *      *      *      *
          *      *      *      *
         ***      ***      ***

-----ABOUT YOURSELF-----
Virgos are illogical, practical, and are idiots in their approach to life.
You are always paying attention to the smallest details which are stupid.
You are known to be impractical and deeply rooted in your ways.
Press any key to continue . . .
```

The screen shown below is the one that shows fortunes. The manipulation of the fortunes is based on the precise time of use of the software and a single may or maynot have the same fortune at two different instance of time .

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
-----USER INFORMATION-----  
Name = Sara  
Date of Birth = 21 / 3 / 2000  
-----  
*****  
----- You are an ARIES-----  
  
          *      *  
        * *      * *  
      * * *      * * *  
        * *      * *  
          *      *  
          *  
          *  
          *  
          *  
          *  
-----FORTUNES-----  
Coming Wednesday is your bad day.  
You will be married 6 times.  
You will graduate with dishonor.  
Year 2020 will be a worst year for you.  
Press any key to continue . . .
```


II. Class Aquarius(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Amna
Date of Birth = 27 / 1 / 2000
-----

*****

----- You are an AQUARIUS-----

      * * * * *
     * * * * *
    * * * * *
   * * * * *
  * * * * *

-----FORTUNES-----
You will be hungry again in one hour.
Someone has googled you recently.
You will soon be famous in SCET.
Do not show off your ego this will destroy your future.
Press any key to continue . . .
```

III. Class Cancer(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Flora
Date of Birth = 21 / 6 / 2000
-----

*****

----- You are an CANCER-----

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *
* * * * *
 * * * *
  * * *
   * *
    *

-----FORTUNES-----
You will plan for higher studies to groom your career.
If you are currently a single Cancerian, then this is also a great year to try to find love.
You need to change in 2020.
Press any key to continue . . .
```

IV. Class Capricorn(sub class):

VI. Class Leo(sub class):

[illegible]

VII. Class *Libra*(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****

-----USER INFORMATION-----
Name = Asm
Date of Birth = 23 / 9 / 2000
-----

*****

----- You are an LIBRA-----

***                ***
** *              * **
** *****      **
** *****      **
** *      *      * **
***      *  *  * ***
          *  *
          *  *
          *

-----FORTUNES-----

2020 is a great year to focus on yourself and your relationships.
It is still a big problem.
Due to their bad temper, Libra people are unwilling to listen to others.
The only way you'll be able to get through the tough times is if you continue to stay focused and steer clear from proc...
```

VIII. Class Pisces(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
  
-----USER INFORMATION-----  
Name = Ahmed  
Date of Birth = 20 / 2 / 2000  
-----  
  
*****  
  
----- You are an PISCES-----  
  
          *      *  
         *      *  
        *      *  
       *      *  
      ****  
     *      *  
    *      *  
   *      *  
  *      *  
 *      *  
  
-----FORTUNES-----  
Stay away from your best friend.  
You can sometimes feel lost and directionless.  
Sorry, we're talking about your weaknesses right away.  
You can react extremely aggressively if you discover you've been cheated.  
Press any key to continue . . . █
```

IX. Class Sagittarius(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Fortune Teller.exe
```

```
*****

-----USER INFORMATION-----
Name = Kisha
Date of Birth = 28 / 11 / 2000
-----

----- You are an SAGITTARIUS-----

          *
         ****
        * * *
       * * * *
      * * * *
     * * * *
    * * * *
   * * * *
  * * * *
 * * * *
* * * *
* * *
* *
*
*

-----FORTUNES-----

You are lucky.
You will have more money than usual this year.
You will meet many people this year and will recognize good or bad friends this year.
Press any key to continue . . .
```

X. *Class Scorpio(sub class):*

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****

-----USER INFORMATION-----
Name = Akmal
Date of Birth = 23 / 10 / 2000
-----

*****

----- You are an SCORPIO-----

          **      **      **
         *  *  *  *  *
          *      *      *
           *      *      *
          *      *      *
           *      *      *
          *      *      *
           *      *      *
          *      *      *
           *      *      *
          *      *      *
          ***      ***      *
                               *****

-----FORTUNES-----

2020 is a great year to focus on your hobbies and do the other things that you love again.
You will have more energy and be happier, in general, this year, so make sure to take advantage of it.
Press any key to continue . . .
```

XI. Class Taurus(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
```

```
*****  
  
-----USER INFORMATION-----  
Name = Laiba  
Date of Birth = 21 / 4 / 2000  
-----  
  
*****  
  
----- You are an TAURUS-----  
  
                                *      *  
                               *        *  
                             **          *  
                            *            *  
                           *              *  
                          *                *  
                         *                  *  
                        *                    *  
                       *                      *  
                      *                        *  
                     *                          *  
                    *                            *  
                   *                              *  
                  *                                *  
                 *                                  *  
                *                                    *  
               *                                      *  
              *                                        *  
             *                                          *  
            *                                            *  
           *                                                *  
          *                                                    *  
         *                                                        *  
        *                                                            *  
       *                                                                *  
      *                                                                    *  
     *                                                                      *  
    *                                                                          *  
   *                                                                            *  
  *                                                                              *  
 *                                                                                *
```

```
-----FORTUNES-----  
Your fortune in 2020 is pretty good.  
You will gain a lot of opportunities which will help you to grow.  
You are determined.  
Once you set your goals, you will believe in yourself and make efforts to achieve them.  
Press any key to continue . . .
```

XII. Class Virgo(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Sama
Date of Birth = 23 / 8 / 2000
-----

*****

----- You are an VIRGO-----

          **   **   **
          *   *   *   *   *   *
          *   *   *   *   *   *
          *   *   *   *   *   *
          *   *   *   *   *   *
          *   *   *   *   *   *
          *   *   *   *   *   *
          ***   ***   ***

-----FORTUNES-----
You should use every year to try to improve your personal life, even if your social and work life. Learn to tolerate a little mess.
2020 is a great year for the you both in terms of personal development, and partnerships and relationships.
Press any key to continue . . .
```

LUCKY NUMBERS

The next screen following is the screen the displays the lucky numbers for the user and is different for different dates of birth. The lucky numbers for a date of birth shall never change.

I. Class Aries (sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Sara
Date of Birth = 21 / 3 / 2000
-----

*****

----- You are an ARIES-----

          *   *   *
          *   *   *
          *   *   *
          *   *   *
          *   *   *
          *   *   *
          *   *   *

-----LUCKY NUMBERS-----
5      8      16     24     37     43     51
Press any key to continue . . .
```

II. Class Aquarius(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Amna
Date of Birth = 27 / 1 / 2000
-----
*****

----- You are an AQUARIUS-----

          * * * * *
        * * * * *
          * * * * *
        * * * * *

-----LUCKY NUMBERS-----
6      7      13     16     27     34     47
Press any key to continue . . .
```

III. Class Cancer(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Flora
Date of Birth = 21 / 6 / 2000
-----
*****

----- You are an CANCER-----

          *
         * *
        * * *
       * * * *
      * * * * *
     * * * * *
    * * * * *
   * * * * *
  * * * * *
 * * * * *
* * * * *

-----LUCKY NUMBERS-----
8      10     21     28     29     47     48
Press any key to continue . . .
```

IV. Class Capricorn(sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Adnan
Date of Birth = 26 / 12 / 2000
-----

*****

----- You are an CAPRICORN-----

          *
        * *
       * * *
      * * *
     * * *
    * * *
   * * *
  * * *
 * * *
* * *

-----LUCKY NUMBERS-----
7      10      18      21      24      36      59
Press any key to continue . . .
```

V. Class Gemini (sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****

-----USER INFORMATION-----
Name = Tayyab
Date of Birth = 21 / 5 / 2000
-----

*****

----- You are an GEMINI-----

          *
         *
        *
       *
      *
     *
    *
   *
  *
 *
*

-----LUCKY NUMBERS-----
6      9      11      19      25      35      60
Press any key to continue . . .
```


VI. Class Leo (sub class):

[illegible]

VII. Class Libra (sub class):

```

C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe
*****

-----USER INFORMATION-----
Name = Asm
Date of Birth = 23 / 9 / 2000
-----

*****

----- You are an LIBRA-----

                                     ***
                                   ** *
                                   ** ***** **
                                   ** ***** **
                                   ** * * * **
                                   *** * * * ***
                                     * * *
                                     * *
                                     *
                                     *

-----LUCKY NUMBERS-----
6      7      26     30     35     38     53
Press any key to continue . . .

```

VIII. Class Pisces (sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Ahmed
Date of Birth = 20 / 2 / 2000
-----
*****

----- You are an PISCES-----

          *
        * *
       * *
      * *
     * *
    * *
   * *
  * *
 * *
* *
*
*

-----LUCKY NUMBERS-----
3      8      17     33     38     44
Press any key to continue . . .
```

IX. Class Sagittarius (sub class):

```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Kisha
Date of Birth = 28 / 11 / 2000
-----
*****

----- You are an SAGITTARIUS-----

          *
        * *
       * *
      * *
     * *
    * *
   * *
  * *
 * *
* *
*
*

-----LUCKY NUMBERS-----
1      5      8      22     29     33     44
Press any key to continue . . .
```

X. Class Scorpio (sub class):


```
C:\Users\mubas\Desktop\Sumayyah\Practice Code\Fortune Teller\Debug\Fortune Teller.exe

*****
-----USER INFORMATION-----
Name = Sama
Date of Birth = 23 / 8 / 2000
-----
*****

----- You are an VIRGO-----

**      **      **
*  *  *  *  *  *  *
*      *      *      *
*      *      *      *
*      *      *      *
*      *      *      *
*      *      *      *
*      *      *      *
***      ***      ***

-----LUCKY NUMBERS-----
4      9      16      17      22      38      41
Press any key to continue . . .
```

LIBRARIES:

- **# include <iostream>:**
This library provides basic input and output services for C++ programs.
- **# include <windows.h>:**
This library is used to clear screen, sleep and system pause.
- **# include <string>:**
This library is used to declare a variable of string type.

Functions:

- **void Welcome() :**

This function show welcome screen in the beginning when user run program .

- **string getStar():**

A Function use to access the star variable outside the class

- **void Name():**

This function allow user to enter their name .

```
{  
    cout << endl << endl;  
    cout << "                ----- ENTER DATA -----" << endl;  
    cout << "                Enter your name = ";  
    cin >> name;  
}
```

- **void Dob() :**

This function has been created to take the birth date from user

```
{  
    cout << "                Enter your Date Of Birth" << endl;  
    cout << "                Date = ";  
    cin >> date;  
    cout << "                Month = ";  
    cin >> month;  
    cout << "                Year = ";  
    cin >> year;  
}
```

- **void Display():**

Function use to display users information if they entered correct input .

- **void Horoscope() :**

Function to set the stars range according to user birth date . for example :

```

{
    if ((date >= 21 && month == 3) || (date <= 19 && month == 4))
    {
        star = "ARIES";

        cout << "                ----- You are an " << star << "-----"
" << endl << endl << endl;

        cout << "                *      * " << endl;
        cout << "                * * * * " << endl;
        cout << "                *   * *   * " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
        cout << "                *      " << endl;
    }

```

- **virtual void AboutYourself() = 0; :**

This function is called Pure virtual function . it has been created to tell the user about their behavior and nature etc . This has been used in most of the classes with the same name but different definition . And this is called polymorphism technique .

- **virtual void Fortunes() = 0;**

This function is called Pure virtual function . It has been created to tell the user about their fortunes or future. This has been used in most of the classes with the same name but different definition. And this is called polymorphism technique.

- `virtual void LuckyNumbers() = 0;`

This function is called pure virtual function. It has been created to tell the user about their lucky numbers according to their stars . This has been used in most of the classes with the same name but different definition. And this is called polymorphism technique.

- Virtual function:

Here functions are declared with VIRTUAL keyword in base class. We use pure virtual function by assigning 0 in the declaration. Abstract class which have at least one pure virtual function."0" tells the compiler that the function has no body and above virtual function will be called pure virtual function.

```
class Questions          // Abstract Class
{
    virtual void AboutYourself() = 0;      // Pure virtual function
    virtual void Fortunes() = 0;          // Pure virtual function
    virtual void LuckyNumbers() = 0;      // Pure virtual function
};
```

- Polymorphism:

We use polymorphism technique to call a member function. You have different classes with a function of the same name, and even the same parameters, but with different implementations. Call to a member function will cause a different function to be executed depending on the type of object that invokes the function.

```
class Aries : public Questions
{
public:
```

```
// Polymorphism Technique
void AboutYourself()
{
```

- Switch case:

We use switch case for choosing options like what user wants to know about their star.

If you wants to know “about yourself” then enter 1.

If you wants “fortune” to know your future then you have to enter 2.

For checking your” lucky number” enter 3.

To use these three options we use switch case.

“ break statement “ is used inside the each block to terminate the switch statement. If we not use break, all cases after the correct case are executed.

```
if (obj.getStar() == "ARIES")
{
    obj.Display();
    obj.Horoscope();
    Aries A;
    switch (choice)    // Switch case to display the question user enter
    {
        case 1:
            A.AboutYourself();
            break;
        case 2:
            A.Fortunes();
```



```

        break;

    case 3:
        A.LuckyNumbers();
        break;
}

```

- If else:

We use if else conditions for maintaining the limit of months, dates are arranged according to their months if the number exceeds more than 31 than it gives “wrong input” and then you have to enter again.

Use “if” to specify a block of code to be executed, if a specified condition is true

Use “else” to specify a block of code to be executed, if the same condition is false

Use “else” if to specify a new condition to test, if the first condition is false

```

void Display()          // To display users information
{
    for (int j = 1; j <= 100; j++)      //Re-take input if incorrect
    {
        if ((month > 12) || (month == 2 && date > 30) || (month == 1, 3, 5,
7, 8, 10, 12 && date > 31) || (month == 2, 4, 6, 9, 11 && date > 30) || (year > 2020) || (year == 0))

```

- Do while:

This loop will execute the code block once, before checking if the condition is true, then it will repeat the loop as long as the condition is true. We use do while loop for retake the input if entered wrong. You have to enter Y, y ,N, n to go the

main menu, if you use another alphabet instead of this four alphabets, screen shows “invalid input”.

```
while ((again != 'y') && (again != 'Y') && (again != 'n') && (again != 'N'))
{
    system("cls");
    cout << "                      ----- Invalid Input! -----" << endl;
    cout << "                      Go to Main Menu? [Y/N] = " << endl;
    cin >> again;
}
} while (again == 'y' || again == 'Y');    // condition to re display the main menu
```

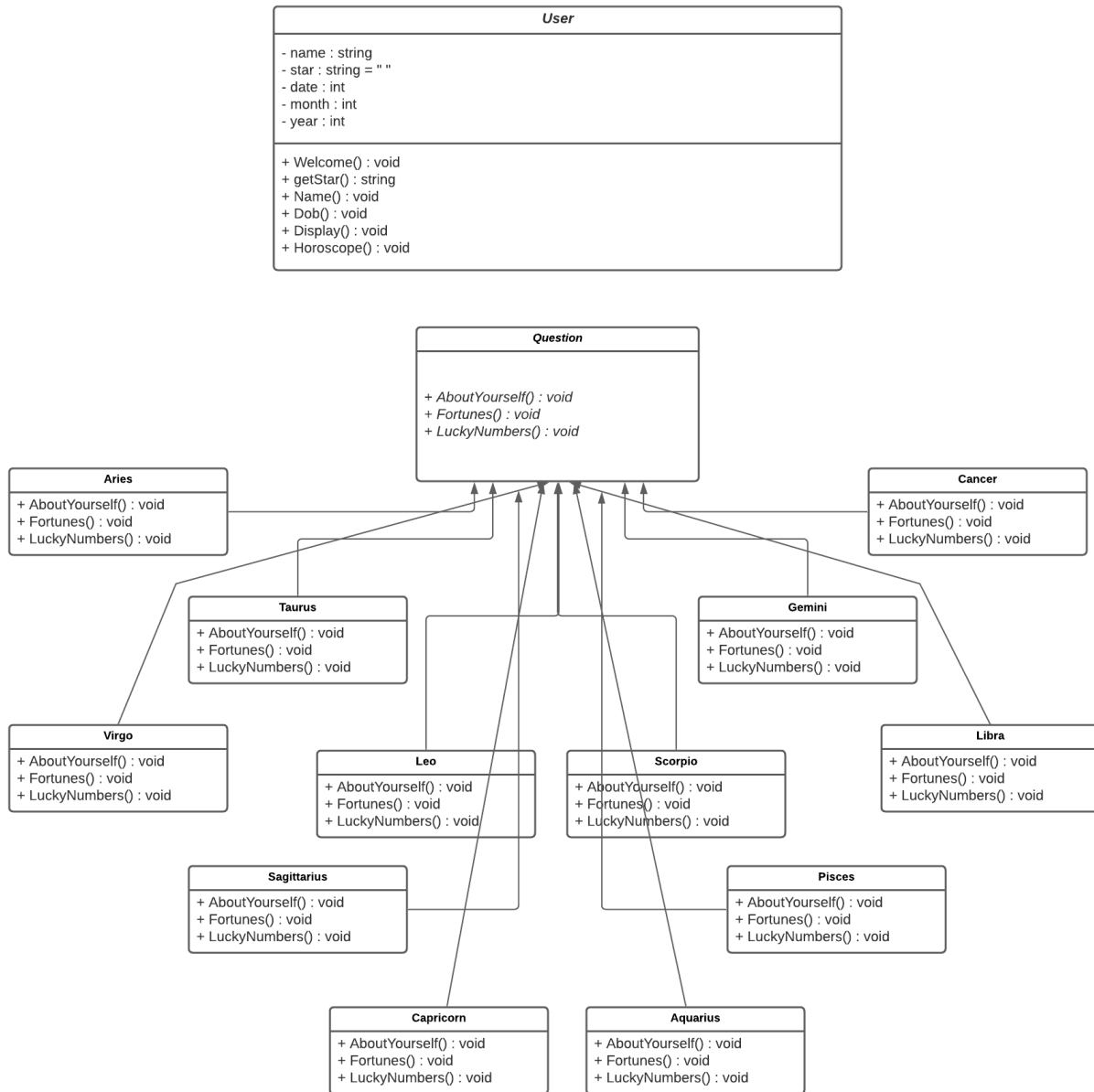
▪ Smartness:

If you enter incorrect input, the program will tell you to insert new input until you enter the correct input.

```
for (int j = 1; j <= 100; j++)    //Re-take input if incorrect
{
    if ((month > 12) || (month == 2 && date > 30) || (month == 1, 3, 5, 7, 8,
10, 12 && date > 31) || (month == 2, 4, 6, 9, 11 && date > 30) || (year > 2020)
|| (year == 0))
    {
        cout << endl << endl;
        cout << "                      ----- Wrong Input! -----" <<
endl;
```

```
cout << "----- Enter again -----" << endl;  
Dob();  
}
```

Class Diagram



Conclusion:

The game has been designed and implemented in C++, was tested and is working properly. We did our best to make it easy and better by using different classes and functions .But maybe there is still a lot of things for improvement.

Hopefully, all the users of this program will find it useful and entertaining.