**Application For Students Admission in College**

Need to prepare a console application for the student admission process for the college “Syncfusion College of Engineering and Technology”.

The application should allow to do below process

1. **Student Registration**
2. **Student Login**
3. **Department wise seat availability**
4. **Exit**

## Student Registration:

1. Need to get the below student’s details.
   1. StudentName
   2. FatherName
   3. DOB
   4. Gender – Enum (Select, Male, Female, Transgender)



* 1. Physics
  2. Chemistry
  3. Maths

After getting all above details create student object and add to student details list and Show “**Student Registered Successfully and StudentID is \_\_\_\_\_ ”.**

## Student Login:

1. If student, select option ‘2’ ask student ID of student and verify the student id is valid. If it is valid, then show following Submenu.
2. **Check Eligibility**
3. **Show Details**
4. **Take Admission**
5. **Cancel Admission**
6. **Show Admission Details**
7. **Exit**
8. **Check Eligibility**

Using check eligibility method check student having average for Physics, Chemistry and Maths of 75.0 and above. IF he has means Show ”Student is eligible ”. Else show ”Student is not eligible”.

1. **Show Details**

Using Show Details method show the students details information.

1. **Take Admission**

* Show the list of available departments and number of seats available by traversing the department details list
* Ask the student to pick one DepartmentID.
* Validate the DepartmentID is present in the list. If it is present, then check whether he is eligible to take admission.
* If he is eligible, check whether seat available or not, if seats available then Check whether the student has already taken any admission by traversing admission details list. If he didn’t took any admission previously.
* Then, Reduce the seat count in department list and create admission details object by using StudentID, DepartmentID, AdmissionDate as Now, AdmissionStatus and Booked and add it to list.
* Finally show “**Admission took successfully. Your admission ID – SF3001”.**

1. **Cancel Admission**

* Show the current logged in student’s admission detail by traversing the list which AdmissionStatus Property is Booked. If fount then show it.
* Change the Admission status property to **Cancelled.**
* Return the seat to Department Details list
* Finally show admission cancelled successfully.

1. **ShowAdmissionDetails**

Show the admission information of current logged in user by traversing admission details list.

1. **Exit**

Exit from submenu and go to main menu.

## Department wise seat availability

Need to display the Department wise seats are available by traversing Department details list.

## Exit

Close the application.

## StudentDetails Class

Properties:

1. StudentID – (AutoGeneration ID – SF3000)
2. StudentName
3. FatherName
4. DOB
5. Gender – Enum (Male, Female, Transgender)
6. Physics
7. Chemistry
8. Maths

Default Student Details:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **StudentID** | **StudentName** | **FatherName** | **DOB** | **Gender** | **Physics** | **Chemistry** | **Maths** |
| SF3001 | Ravichandran E | Ettapparajan | 11/11/1999 | Male | 95 | 95 | 95 |
| SF3002 | Baskaran S | Sethurajan | 11/11/1999 | Male | 95 | 95 | 95 |

**Methods:**

1. Check Eligibility (Method with argument, with return types) – cutOff -75.0
   * Calculate average of 3 marks, if average >= 75.0 return true, else false

## Department Details Class

Properties:

1. DepartmentID – (AutoIncrement - DID101)
2. DepartmentName
3. NumberOfSeats

Default Department Details

|  |  |  |
| --- | --- | --- |
| **DepartmentID** | **Department Name** | **NumberOfSeat** |
| DID101 | EEE | 29 |
| DID102 | CSE | 29 |
| DID103 | MECH | 30 |
| DID104 | ECE | 30 |

## Admission Details Class

Properties:

1. AdmissionID – (Auto Increment ID - AID1001)
2. StudentID
3. DepartmentID
4. AdmissionDate
5. AdmissionStatus – Enum- (Select, Admitted, Cancelled)

Default Admission Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AdmissionID** | **StudentID** | **DepartmentID** | **AdmissionDate** | **AdmissionStatus** |
| AID1001 | SF3001 | DID101 | 11/05/2022 | Booked |
| AID1002 | SF3002 | DID102 | 12/05/2022 | Booked |