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**CENTRALISED SCHOLARSHIP MANAGEMENT SYSTEM**

**USE CASE SCENARIO WALKTHROUGH**

**Use case 1 : Apply for scholarship**

**Scenario 1 : successful scenario**

**Steps :**

1.Student enters some basic filtering criteria for viewing scholarships(field

of study, level of study). Based on the criteria, a list of scholarships is shown.

2. The student selects a particular scholarship from the list. The

details of the scholarship are shown.

3. The student starts applying for the scholarship by filling the form. The academic details of the student are pre-filled according to his profile.

4. The student uploads any additional documents if required.

5. The software confirms from the college DB that the selected candidate does not have any existing scholarship. After evaluation, the status of the applicant for that

particular scholarship is updated.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, Scholarship,Portal** | **Student - Portal (Association)**  **Scholarship- Portal (Association)** | **Attributes of Scholarship class :**  **Funding Organization,**  **Scholarship Type,**  **Scholarship Duration,**  **Scholarship Deadline,**  **Scholarship Amount,** | **Student : enterCriteria()**  **Portal : showListOfScholarships()** |
| **2** | **Student, Portal** | **Student - Portal (Association)** | **All attributes of scholarship class** | **Student : selectScholarship()**  **Portal : showScholarshipDetails()** |
| **3** | **Student, Scholarship Application** | **Student - Scholarship Application(Association)** | **All attributes of ScholarshipApplication** | **Student : fillForm()** |
| **4** | **Student, Scholarship Application** | **Student - Scholarship Application(Association)** | **Documents** | **Student : uploadDocuments()** |
| **5** | **Portal** | **Portal - Scholarship Application(Association)** |  | **Portal : checkSingleScholarship()**  **Portal : saveStudentApplication()** |
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**Scenario 2 : Unsuccessful scenario(no matching scholarships)**

**Steps:**

1.Student enters some basic filtering criteria for viewing scholarships(field

of study, level of study).

2. No scholarships satisfy given criteria. A display message is shown requesting user to change criteria.

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| **1** | **Student, Scholarship,Portal** | **Student - Portal (Association)**  **Scholarship- Portal (Association)** | **Attributes of Scholarship class :**  **Funding Organization,**  **Scholarship Type,**  **Scholarship Duration,**  **Scholarship Deadline,**  **Scholarship Amount,** | **Student : enterCriteria()**  **Portal : showListOfScholarships()** |
| **2** | **Portal** |  |  | **Portal : displayPrompt() - for changing criteria** |

**Scenario 3 : Unsuccessful scenario(has existing scholarship)**

**Steps :**

1.Student enters some basic filtering criteria for viewing scholarships(field

of study, level of study). Based on the criteria, a list of scholarships is shown.

2. The student selects a particular scholarship from the list. The

details of the scholarship are shown.

3. The student starts applying for the scholarship by filling the form. The academic details of the student are pre-filled according to his profile.

4. The student uploads any additional documents if required.

5.The software confirms from the college DB that the selected candidate does not have any existing scholarship. After evaluation, the status of the applicant for that

particular scholarship is updated.

**6.** If the candidate has an existing scholarship, he/she will be prompted to first discontinue that scholarship and then apply for a new scholarship.(**Assumption**: A particular student can receive only one scholarship at a particular time instant.)

**Steps 1 to 4 are the same as the ones mentioned in successful scenario.**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **5** | **Portal** | **Portal - Scholarship Application(Association)** |  | **Portal : checkSingleScholarship()**  **Portal : saveApplication()** |
| **6** | **Student** |  |  | **discontinueScholarship()** |

**Note : In use case model, we had 5 alternating scenarios. Here, we have mentioned only 2. The other 3 can be managed using the displayPrompt() method of Portal class. No further changes are required in class model.**

**Use Case 2 : Introduce/Edit Scholarship**

**Scenario 1: Successful Scenario**

**Steps:**

1.In case of a new scholarship, the funding organisation enters the details(eligibility, funding) of the scholarship in the system.Otherwise, the organisation can edit the scholarship application criterias and information related to the scholarship(funding amount, duration of scholarship, etc).

2.Additionally, they specify the application form and the relevant documents required. The software manager verifies the authenticity of the scholarship and if the organisation has the financial capability of providing the scholarship.

3.Finally, the organisation gives its consent to make the new/modified scholarship available to the public. The scholarship is added to the database of the system and shown publicly.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Funding Organization,**  **Scholarship,**  **Portal** | **Funding Organization-Portal (Aggregation)**  **Funding Organization-Scholarship (Association)** | **Amount, Criteria List** | **Funding Organization -**  **EnterScholarshipDetails()**  **Funding Organization -**  **EditScholarship()** |
| **2** | **Funding Organization,**  **Scholarship Application,**  **Portal Manager,**  **Portal** | **Funding Organization-Scholarship Application(Association)**  **Portal Manager-Portal(Association)** | **Document List** | **Portal Manager -**  **VerifyFundingOrganization()**  **Portal Manager -**  **VerifyScholarship()** |
| **3** | **Funding Organization** |  |  | **addScholarship()** |

**Scenario 2: Unsuccessful Scenario**

**Steps:**

1.In case of a new scholarship, the funding organisation enters the details(eligibility, funding) of the scholarship in the system.Otherwise, the organisation can edit the scholarship application criterias and information related to the scholarship(funding amount, duration of scholarship, etc)

2.The organisation must select the criteria for selection available in

the portal. For example, the criteria can be academic parameters, maximum family income.

3.If the criteria is not available for selection, the organisation can request the portal to include that criteria.

**Step 1 is same as the one mentioned in successful scenario**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **2** | **Funding Organization,**  **Portal** | **Funding Organization-Portal (Aggregation)** |  | **Funding Orgainzation -**  **SetCriteria()** |
| **3** | **Funding Organization,**  **Portal** | **Funding Organization-Portal (Aggregation)** |  | **Funding Organization -**  **RequestCriteria()** |

**Scenario 3: Unsuccessful Scenario**

**Steps:**

1.In case of a new scholarship, the funding organisation enters the details(eligibility, funding) of the scholarship in the system.Otherwise, the organisation can edit the scholarship application criterias and information related to the scholarship(funding amount, duration of scholarship, etc)

2.The organisation may want to delete the scholarship.

3.In such a case, the portal verifies that no students are currently getting the scholarship and then allows for deletion. The scholarship is no longer shown on the portal. The use case ends.

**Step 1 is same as the one mentioned in successful scenario**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **2** | **Funding Organization** |  |  | **deleteScholarship()** |
| **3** | **Funding Organization,**  **Portal** | **Funding Organization-Portal (Aggregation)** |  | **Portal-**  **VerifyScholarshipDeletion()** |

**Scenario 4: Unsuccessful Scenario**

**Steps:**

1.In case of a new scholarship, the funding organisation enters the details(eligibility, funding) of the scholarship in the system.Otherwise, the organisation can edit the scholarship application criterias and information related to the scholarship(funding amount, duration of scholarship, etc).

2.Additionally, they specify the application form and the relevant documents required. The software manager verifies the authenticity of the scholarship and if the organisation has the financial capability of providing the scholarship.

3.If the software manager rejects the scholarship, then the provider is informed about the decision and the reason behind the decision.

**Step 1,2 are same as the ones mentioned in successful scenario**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **3** | **Funding Organization,**  **Portal Manager,**  **Portal** | **Funding Organization-Portal(Aggregation)**  **Portal-Portal Manager(Association)** |  | **Portal-**  **informDecision()** |

**Use case 3 : Select candidates**

**Scenario 1 : Successful scenario**

**Steps :**

1. After the application deadline is over, our system starts filtering out the

candidates based on the criteria provided.

2. The candidate list is sent to the funding organisation.

3. The system notifies the candidates of their status(accepted/rejected) through email/phone call.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Portal** |  |  | **selectStudents()** |
| **2** | **Portal, Funding Organization.** | **Portal-Funding Organization(Association)** |  | **sendListToFO()** |
| **3** | **Portal, Student** | **Portal-student(Association)** |  | **notifyStudents()** |

**Scenario 2 : Unsuccessful scenario**

1. After the application deadline is over, our system starts filtering out the

candidates based on the criteria provided.

2. The candidate list is sent to the funding organisation.

3. The funding organisation does a further screening and sends the list to the portal.

**Steps 1 and 2 are same. However, before notifying candidates, the funding organisation may do a further screening.**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **3** | **Funding Organization, Portal** | **Portal-Funding Organization(Association)** |  | **Portal -**  **sendFurtherScreenedStudents()** |

**Use case 4: Pay Scholarship**

**Scenario 1 : Successful scenario**

**Steps :**

1.The funding organisation informs the system to start transfer of funds to the selected candidates.

2. The system checks the eligibility of the selected candidates.(the system needs to check the eligibility each semester).

3. The bank is informed about the student’s bank accounts details and told to initiate the transaction.

4.On successful transfer, the bank account sends the receipt to the system.The system sends the receipt to the student.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Funding Organization** |  |  | **paymentInitiation()** |
| **2** | **Portal** |  | **Semester** | **checkEligibiltyOfStudent()** |
| **3** | **Portal** |  | **Bank Account** | **informBank()** |
| **4** | **Portal** |  | **Receipt** | **sendReceipt()** |

**Scenario 2 : Unsuccessful Scenario**

**Steps :**

1.The funding organisation informs the system to start transfer of funds to the selected candidates.

2. The system checks the eligibility of the selected candidates.(the system needs to check the eligibility each semester)

3.If the candidate is no longer eligible, he/she is informed about the same and the scholarship is discontinued.

**Step 1,2 are same as the ones mentioned in successful scenario**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **3** | **Portal** |  |  | **informStudent()** |

**Scenario 3 : Unsuccessful Scenario**

**Steps :**

1.The funding organisation informs the system to start transfer of funds to the selected candidates.

2. The system checks the eligibility of the selected candidates.(the system needs to check the eligibility each semester).

3. The bank is informed about the student’s bank accounts details and told to initiate the transaction.

4.If the transfer is not successful due to wrong bank account details, the student is informed about the same. After the student changes the details, the transaction is done again.

**Step 1-3 are same as the ones mentioned in successful scenario**

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **4** | **Portal** |  |  | **informStudent()** |

**Use case 5 : Accept/Reject Scholarship**

**Scenario 1 : Successful scenario**

**Steps :**

1. Students accept the scholarship and send their acceptance.

2. Students are requested to recheck their bank account details before the funds are transferred. The funding organisation is informed about the student’s decision.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, F.O.** | **Student - Funding organisation(Association)** |  | **Student -**  **acceptScholarship()** |
| **2** | **Student** |  | **bankAccount** | **checkBankDetails()** |

**Scenario 2 : Unsuccessful scenario**

1. Student rejects scholarship

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, F.O.** | **Student - Funding organisation(Association)** |  | **rejectScholarship()** |

**Scenario 3 : Unsuccessful scenario**

**Steps:**

1.Students accept the scholarship and send their acceptance

2.Student changes bank account details

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, F.O.** | **Student - Funding organisation(Association)** |  | **Student -**  **acceptScholarship()** |
| **2** | **Student** |  | **bankAccount** | **changeBankDetails()** |

**Use case 6 : User Login**

**Scenario 1 : Successful scenario**

**Steps :**

1. User opens portal. The system prompts user for account credentials. User enters his user ID and password. The system authenticates the credentials. The user is directed to the homepage.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, Funding Organization,**  **Portal, User** | **Student - Portal (Aggregation)**  **Funding Organization-Portal (Aggregation)**  **User-Student (Inheritence)**  **User-Funding Organization (Inheritence)** | **Email, Password** | **Portal -**  **EnterCredentials()**  **AuthenticateUser()**  **User -**  **Login()** |

**Use case 7 : Manage account**

**Scenario 1 : Successful scenario**

**Steps :**

1. User requests the system for editing his profile and the system grants it. User fills in his details and edits the profile.

2. Upon finishing, user is asked for confirmation. The updated profile is stored in the database.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, Funding Organization, User** | **Student-User(Inheritance)**  **Funding Organization - User (Inheritance)** | **All attributes of Student/Funding Organization** | **User : editProfile()** |
| **2** | **Student, Funding Organization, User, Portal** | **Student-User(Inheritance)**  **Funding Organization - User (Inheritance)** |  | **User: confirmChanges(),**  **Portal : storeInDatabase()** |

**Scenario 2 : Unsuccessful scenario**

**Steps :**

1. If user is not registered in system, he/she is registered first.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, Funding Organization, User** | **Student-User(Inheritance)**  **Funding Organization - User (Inheritance)** | **Email, Password, basic details in registration form** | **User : register()** |

**Scenario 3: Unsuccessful scenario**

**Steps :**

1. User requests the system for editing his profile and the system grants it. User fills in his details and edits the profile.

2. Upon finishing, user is asked for confirmation. If user doesn’t confirm, user is taken back to editing page.

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| **Steps** | **Classes** | **Relationships** | **Attributes** | **Methods** |
| **1** | **Student, Funding Organization, User** | **Student-User(Inheritance)**  **Funding Organization - User (Inheritance)** | **All attributes of Student/Funding Organization** | **User : editProfile()** |
| **2** | **Student, Funding Organization, User, Portal** | **Student-User(Inheritance)**  **Funding Organization - User (Inheritance)** |  | **User: ConfirmChanges(),**  **(pass false as argument)** |