UNIVERSITY DEPARTMENT INFORMATION SYSTEM

UDIS Form Based Specification : Student Admission	
Function	Student Admission
Description	Registers a new student in the system and captures their basic information.
Inputs	- Student Name - Address - Contact Information (Phone, Email) - Date of Birth - Emergency Contact Details - Academic Background (Previous Degrees, etc.)
Source	Admission form filled by student or manually entered by department secretary.
Outputs	- Unique Student ID generated by the system. - Confirmation message with Student ID displayed on screen
Destination	Student Database
Action	- Validate input data for completeness and accuracy. - Generate a unique Student ID. - Store student information in the Student Database. - Generate a confirmation message.
Requires	Access to Student Database.
Pre Condition	Admission form or information of admission.
Post Condition	New student record is created in the Student Database.
Side-effects	May generate email or SMS notification to student and/or departmental staff.

UDIS Table Based Specification : Student Admission	
Condition	**Action**
Name,Address or Contact Field is empty	Display error message: "Please fill in the required field."
DoB is a future date.	Display error message: "Please enter the proper date of birth."
Contact is less or more than 10 digits.	Display error message: "Please enter the correct number.."

UNIVERSITY DEPARTMENT INFORMATION SYSTEM

UDIS Form Based Specification : Course Registration	
Function	Course Registration
Description	Allows students to register for courses at the beginning of each semester.
Inputs	- Student ID - List of chosen courses
Source	Online portal or registration form submitted by student.
Outputs	- Confirmation message showing successful registration. - Updated student record with registered courses.
Destination	Student Database, Course Database
Action	- Validate student ID and course availability. - Check for prerequisites and potential conflicts with existing courses. - Update student record with registered courses. - Update course enrollment statistics in Course Database. - Generate a confirmation message.
Requires	Access to Student Database, Course Database, Course Schedule.
Pre Condition	Student records exist and valid semester dates are set.
Post Condition	Student is registered for chosen courses and course enrollment data is updated.

UDIS Table Based Specification : Course Registration	
Condition	**Action**
Invalid student ID format entered	Display error message: "Please enter a valid student ID."
Chosen courses unavailable or schedule conflicts exist	Display error message: "Selected course(s) unavailable or schedule conflicts detected."
Chosen more than 5 courses	Display error message: "Please select only 5 courses"

UNIVERSITY DEPARTMENT INFORMATION SYSTEM

University Department Information System : Grade Entry and Calculation	
Function	Grade Entry and Calculation
Description	Allows instructors to submit grades for their courses at the end of the semester
Inputs	- Instructor ID - Course ID - List of student IDs and corresponding grades
Source	Grade sheets submitted by instructors
Outputs	- Confirmation message for successful grade entry. - Updated student records with calculated GPA and CGPA.
Destination	Student Database, Grade Database
Action	- Validate instructor and course IDs. - Update student records with individual course grades. - Calculate student GPA and CGPA for the semester and cumulatively. - Store grades in Grade Database. - Generate a confirmation message.
Requires	Access to Student Database, Grade Database, Course Database.
Pre Condition	Course completed and valid grade scale defined.
Post Condition	Student grades are recorded and GPA/CGPA are calculated and updated.
Side-effects	May trigger notifications of successful completion to academic advisors.

UDIS Table Based Specification : Grade Entry and Calculation	
Condition	**Action**
Invalid instructor ID format entered	Display error message: "Please enter a valid instructor ID."
Invalid course ID format entered	Display error message: "Please enter a valid course ID."
CGPA <=5.0	Display message: "Slow pace Learning Program Suggested."
CGPA>5.0	Display message: "Result is displayed."

UNIVERSITY DEPARTMENT INFORMATION SYSTEM

University Department Information System : Departmental Research Projects	
Function	Departmental Research Projects
Description	Maintains information about ongoing research projects in the department.
Inputs	- Project Title and ID - Team members - Start and end dates - Funding source and budget - Research area and keywords - Publications and achievements
Source	Research documents, department records, manual entry.
Outputs	Updated list of research projects with details. Search results based on keywords or PI.
Destination	Research Database
Action	- Validate project information and track existing entries. - Add new projects or update existing records. - Link to publications and achievements. - Search for projects based on user queries.
Requires	Access to Research Database, Publication Database
Pre Condition	Research Project is available beforehand.
Post Condition	Research project data is updated and searchable.
Side-effects	May trigger reports on research productivity or funding utilisation.

UDIS Table Based Specification : Departmental Research Projects	
Condition	**Action**
Project title or ID is empty	Display error message: "Please enter project title and ID."
Start date after end date	Display error message: "Start date cannot be after end date."
Funding source or budget is empty	Display error message: "Please enter funding source and budget."
Search query is empty	Display all research projects.
Search query matches project title, ID, or keywords	Display matching research projects.

UNIVERSITY DEPARTMENT INFORMATION SYSTEM

<table>
<tr><td colspan="2" align="center">University Department Information System : Financial Management</td></tr>
<tr><td>Function</td><td>Financial Management</td></tr>
<tr><td>Description</td><td>Tracks income, expenditure, and balance of department accounts</td></tr>
<tr><td>Inputs</td><td>

Transaction type (income, expense)
Date
Amount
Description
Fund source (university grant, consultancy, etc.)

</td></tr>
<tr><td>Source</td><td>Financial documents, manually entered transactions.</td></tr>
<tr><td>Outputs</td><td>

Updated cash book entries.
Reports on income/expense categories and current balance.

</td></tr>
<tr><td>Destination</td><td>Financial Database</td></tr>
<tr><td>Action</td><td>

Validate transaction information and category selection.
Update cash book with new entries.
Calculate current balance and generate reports.

</td></tr>
<tr><td>Requires</td><td>Access to Financial Database and budget information.</td></tr>
<tr><td>Pre Condition</td><td>Transaction details and allocated Budget are known beforehand.</td></tr>
<tr><td>Post Condition</td><td>Financial data is updated and reports are generated.</td></tr>
<tr><td>Side-effects</td><td>May trigger budget alerts or generate financial statements.</td></tr>
</table>

<table>
<tr><td colspan="2" align="center">UDIS Table Based Specification : Financial Management</td></tr>
<tr><td align="center">Condition</td><td align="center">Action</td></tr>
<tr><td>Transaction date or Amount Field is empty</td><td>Display error message: "Please enter the transaction date/valid amount."</td></tr>
<tr><td>Invalid transaction type (income/expense)</td><td>Display error message: "Please select valid transaction type."</td></tr>
<tr><td>Date range filter is empty</td><td>Display all financial transactions.</td></tr>
<tr><td>Date range filter matches transaction date</td><td>Display transactions within a defined date range.</td></tr>
<tr><td>Transaction type filter is selected</td><td>Display transactions of chosen type (income/expense).</td></tr>
</table>