



# Ums - software requirement specification srs

Software Engineering (Lovely Professional University)

# Software Requirements Specification

**For**

**LPU UMS**

**Submitted by: - Prabhleen Kour**

**Roll No: - A-04 (11509802)**

**Sec:-K1512**

**Submitted to:-Mrs. Preeti Gupta**



**Lovely Professional University**

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### **CERTIFICATE: -**

This is to certify that the thesis entitled “LPU UMS” submitted by Prabhleen kour, in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Computer Science and Engineering at Lovely Professional University, Punjab is an authentic work carried out by them under my supervision and guidance. To the best of my knowledge, the matter embodied in the thesis Has not been submitted to any other university institute for the award of any Degree.

Date:

1/03/2017

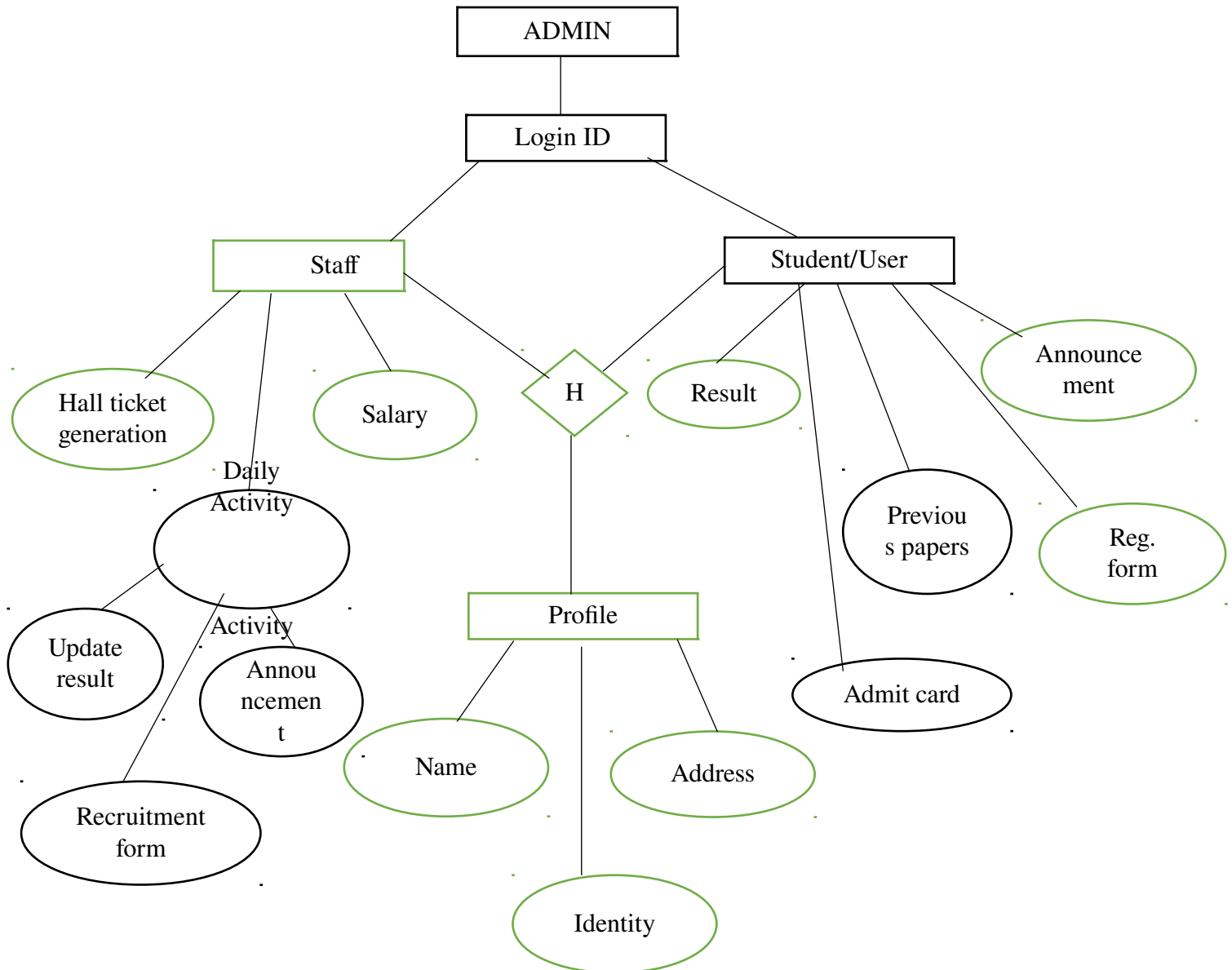
### **ACKNOWLEDGEMENT: -**

I own a great many thanks to a great many people who helped and supported me during my project work. I express my sincere gratitude Mr.Vijaya Raju Sir for guiding and correcting various documents of mine with attention and care. He has taken pain to go through the project and make necessary correction as And when needed. Finally I would like to thank and friends for their help and assistance all through this project.

### **ABSTRACT: -**

Lovely Professional University, Punjab is one of the reputed institutions for technical education in India. The main purpose of the project is intended to develop A portal for management of Times of India a web based news. The portal provides a suitable and easy display for which large population around the world can learn or will have the knowledge about the world. Basically this is a crowd sourcing newspaper. The idea is anyone can send a news item using their web based gadget which is managed by administrator to whom the editor's panel kept in charge for this to make it visible for the masses. This portal is developed using HTML, PHP & CSS technologies and SQL Server.

## Entity Relationship Diagram For UMS: -



## I. INTRODUCTION

### Purpose:-

The main objective of this document is to illustrate the requirements of the project University Management System. This document describes the design decision, architectural design and the detailed design needed to implement the system. It provides the visibility in the design and provide the information needed for software support. The document gives the detailed description of both functional and non-functional requirements proposed by the client.

### A. Intended Audience and Reading Suggestions

The document is intended for all the stakeholders' customer and the developer (designers, testers, maintainers). The reader is assumed to have basic knowledge of all the algorithms used to reduce the complexity and also have knowledge of all the basics which are used in the development and maintenance of the project or an online system and also some basic knowledge of Entity Relationship diagrams

### B. Document Conventions, Definitions:-

The following are the list of conventions and acronyms used in this documentation.

- Administrator: - A login id representing a user with user administration privileges to the software.
- User: - A general login id assigned to users.
- Client: - Intended users for the software.
- SQL:-Structured Query Language used to retrieve or store the information in the database.
- ASP"- Active Server Pages: A Webpage formatted on the server and delivered to the browser.
- User Interface Layer: - The section of the assignment referring to what the user interacts with directly.
- Application layer: - This section referring the the Web Server where all computations are completed.

- Data Storage Layer: - This term refer to where all the data is being stored.
- Data flow Diagram: - It show the relationship or dataflow between the entities.
- Boolean: - A true /false statement.
- Interface: - Something used to communicate across different mediums.
- Unique keys; - Used to differentiate entities in database.
- Layers: - Represents the section of the project.
- SQL Server:- A server used to store the data in a well-organized format

### C. Project Scope: -

The online university management system is developing for the schools of the university and used to replace the old paper work system. The software supports a computerized university management system network. The network enables Teachers, students to complete simple tasks via U.M.S that may be easily accessed to the authorized members at any time. The UMS identifies a USER by a login id which provided by the administrator and password. It collects information through the database by following the login id (e.g., profile, attendance, examination, fees payment). The software must handle concurrent accesses to the same account correctly.

## II. OVERALL DESCRIPTION

### A. Product Perspective

The proposed University Management System is an online University management system. This system will provide a view submit online payment



uploading various documents and other resources. This view will be based on the categories like attendance view and daily activities. Further the university management staff (faculty) can add/remove/update the resource or an automatic removal of accessing features when the time limit completes.

The system have also an ADMIN who have full-fledged rights with the regards to managing resources across branches. The user can view can submit, online payment, uploading various documents and information about their account etc. there are basically two types of users one is students and other are faculty members. Each user facilitates with a different account number having a profile along with a password for private use. The two type of user differ from each other due to the accessing limits to online University Management System

## B. Product Feature:-

There are three types of different user who will be using this product

So, every one ha the different interfaces to use the interface..

- **University chancellor.** who will be acting as the administrator
- **Faculty Members** who are second level users accessing UMS.
- **Students of the university** who will be accessing the UMS online

The features that are available to the administrator are:

- Can create or delete the account.
- Can view the accounts.
- Can change the password.
- Can hide any kind of feature from both users.

- Insert/delete/edit the information of available on the UMS.
- Can access all the accounts of faculty and the students.

The features that are available to the faculty are:

- ✓ Can mark the attendance of the students online.
- ✓ Can create the continuous assessments for the students.
- ✓ Can view the online attendance off the students.
- ✓ Can submit the questions papers online.
- ✓ Can upload marks, assignments, reading material for the students.

The features that are available to the Students are:

- Can view the different types of the reading material and assignments are available in their account.
- Can pay their fees by online mode.
- Can view their marks as well as attendance.
- Can view and modify it profile but cam modify it to some limits range.

## C. User classes and characteristics:-

There are various by various users for kind of user for the product .Usually web products are visited by various user for different reasons visited different reasons.

The user includes:-

- Chancellor who will be acting as the controller and he will have all the privileges of administrator.
- Faculty members who will be using the above features by accessing the UMS online.
- Students who will be using the above features by accessing the UMS online

### **Operating Environment:-**

The product will be operating in windows environment. Also it will be compatible with the IE 6.0. Most of the features will be compatible with the Mozilla Firefox & Opera 7.0 or higher version. The only requirement to use this online product would be the internet connection

### **Design and Implementation Constraints: -**

*The Product is developed using ASP. The backend database for this SQL Server. The product is accomplished with login facility so that specific function is available to specific student.*

### **User Documentation:-**

The product will include user manual. The user manual will include product overview, complete configuration of the used software (such as SQL server), technical details, backup procedure and contact information which will include email address. The product will be compatible with the Internet Explorer 6.0 or higher. The databases will be created in the Microsoft SQL server 2000.

### **Assumptions and Dependencies:-**

The product needs following third party product.

- ☐ Microsoft SQL server to store the database.
- ☐ ASP to develop the Product

## **III. SPECIFIC REQUIREMENTS:-**

### **A. Database Storage:-**

#### **1) Description and priority:-**

Proposed Database is intended to store, retrieve, update, and manipulate information related to university which include

- ✓ Profile of both users
- ✓ Staff information
- ✓ Student details
- ✓ My account
- ✓ Online payment
- ✓ View attendance/marks/uploading of marks and assignments.

### **Stimulus / Response Sequences:-**

#### **Responses for Administrator:**

The administrator can Login and Logout. When the Administrator Logs into the University management system. The system will check for validity of login .If the Login and password are valid, the response to this action is the administrator will be able to modify, view, add, deleting and all other functions that can be performed on the database

#### **Functional requirement:-**

This section gives the list of Functional and nonfunctional requirements which are applicable to the University Management System

#### **Interface Requirements:-**

This section describes how the software interfaces with other software products or users for input or output.

#### **User Interfaces**

This section Describes how this product interfaces with the user

## **Input Requirements:-**

### **GUI:-**

Describes the graphical user interface if present. This section should

Include a set of screen dumps or mockups to illustrate user interface features.

#### **1. Description**

The user interface must be customizable by the administrator

#### **2. Criticality**

This issue is essential to the overall system. All the modules provided with the software must fit into this graphical user interface and accomplish to the standard defined.

#### **3. Technical issues**

In order to satisfy this requirement the design should be simple and all the different interfaces should follow a standard template. There will be the possibility of changing colors and images, plus switching between interfaces with the minimum impact for the users.

#### **4. Risks**

To reduce the circumstances under which this requirement might not be able to be satisfied, all the designers must have been developed web sites previously and they must be aware of html restriction and cross browsers implementations before starting the designing. In order to reduce the probability of this occurrence the entire design team will be trained in basic html development and macromedia fireworks, this tool will be used instead of Photoshop.

#### **5. Dependencies with other requirements**

All user interfaces should be able to interact with the user management module and a part of the interface must be dedicated to the login/logout module

#### **User access:**

Each faculty member and student is assigned a unique identifier upon admission to the university. Both of them must know this. This identifying key maps to all his/her registration record information in the main registration system. Admitted and current students have their online registration accounts also enabled. Such account maybe disabled during his/her stay as a matriculated student and/or after graduation or separation From the University.

#### **Uploading of data**

Each faculty member should facilitates with uploading of data such assignments, their marks and other kind of reading material. Similarly such of option must be present their for students to upload their assignments.

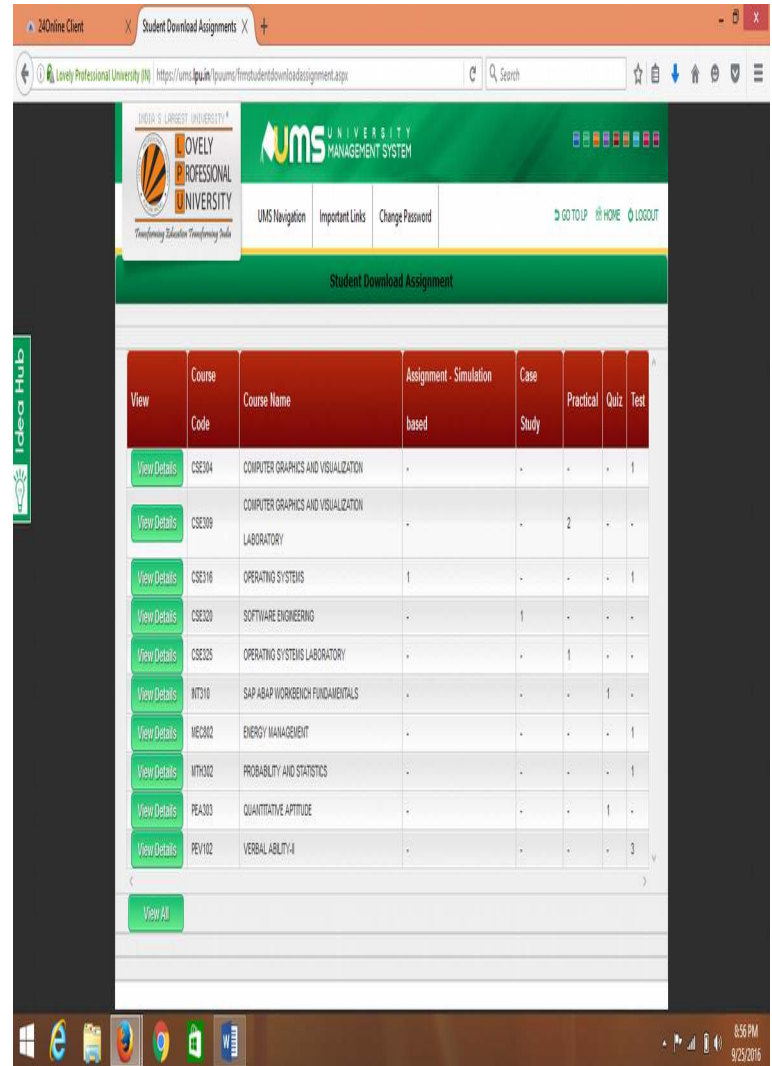
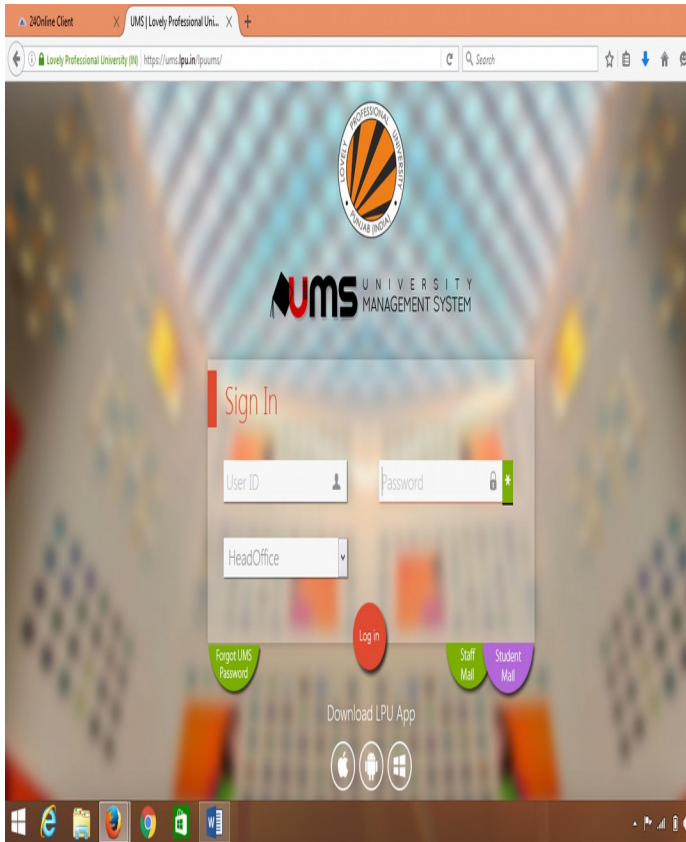
#### **Online payment**

The students should have the facility to pay their payment online any kind of university fee charges so as there should be facility to check whether the entered code for payment is a valid code or not or in simple word a proper validation is required.

#### IV. EXTERNAL INTERFACE REQUIREMENTS

It include the non – functional requirements.

##### A. User Interfaces



24Online Client | Statement of Accounts | +

https://ums.lpu.in/lpuums/Reports/frnStatementofAccounts.aspx

**Statement of Accounts**

Select Financial Year: 2016-2017

Date	V.No	V.Type	Particulars	Debit	Credit
			OPENING BAL.	-	-
01-04-2016		- FEE DUE	Examination Fee, 3/5,	1500	-
01-04-2016		- FEE DUE	Tuition Fee, 3/5,	79500	-
02-04-2016	838	SV	Scholarship Base: Marks in Eligibility Qualification Exam, 70.00 To 79.99, Percentage, Percentage Marks, Percentage Marks, Term: 5, Agt Regd. No. 11403701	-	25000
23-04-2016		- FEE DUE	HOSTEL FEE, 3/5,	44500	-
25-04-2016	127	RV	Examination Fee, B.Tech -M.Tech (Dual Degree) - CSE 3/5, R.No.8355, Draft 231414 PNB, 21-04-2016,	-	1500
25-04-2016	127	RV	Fee, B.Tech -M.Tech (Dual Degree) - CSE, 3/5, R.No.8355, Draft 231414 PNB, 21-04-2016,	-	53500
25-04-2016	127	RV	HOSTEL FEE, B.Tech -M.Tech (Dual Degree) - CSE 3/5, R.No.8355, Draft 231414 PNB, 21-04-2016,	-	44500
07-08-2016		- FEE CREDIT	Tuition Fee, amount adjusted agt advice no. 20850	-	1000
				125500	125500

Select Report Type: Summary

Report Type :

Registration # 11509802

Term Id ( Semester ) 216172

☒ Include All Dates

From Date 02/28/2017

To Date 02/28/2017

Show Home

1 of 1

Find | Next

### Course Wise Attendance Summary

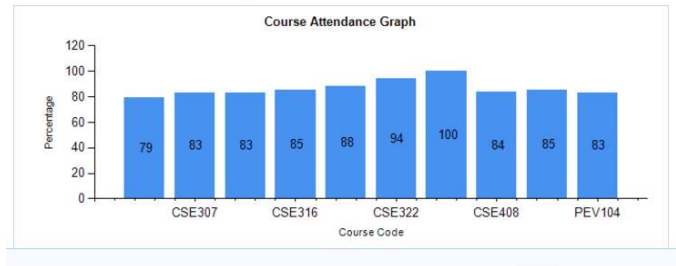
Registration # 11509802

Student Name : Prabhleen Kour

Batch Year

2015

Prog. Name : B.Tech. (Computer Science & Engineering)



24Online Client | Student Assignment Upload | +

https://ums.lpu.in/lpuums/frnstudentassignmentsupload.aspx

**Student Assignment Upload**

Course Name: CSE304-COMPUTER GRAPHICS AND VISUALIZATION

Teacher Name: Select

Please Upload (Max 2000) .doc, .docx, .ppt, .pptx, .pdf file only and do not use special character like (\*) etc in file name. Max Size 5 MB

24Online Client X UMS - Home X Announcement History X +

Lovely Professional University (LPU) <https://ums.lpu.edu.in/ums/AnnouncementHistory.aspx>

**Announcement History**

Search By: Date Wise  
Entry Date: 09/13/2016 greater than

Show

Student Archive

Reporting Schedule and Venue for TECH MAHINDRA LTD. Campus Placement Drive Dt: 26.09.16 (9/24/2016)

All the students registered for the placement drive by TECH MAHINDRA LTD. must report as per the following schedule for the placement drive:  
Reporting Date: 26th Sept 2016 (Monday)  
Reporting Time: 8:30 A.M  
Reporting Venue: Shanti Devi Mittal Auditorium  
\*\*Note: Candidates are required to note down their lab numbers for the online test as per the attached list.

Attachments:  
1. [Sample Plan.xls](#)

Uploaded By:  
Office of Director DCS  
Office Management and Conduct Cell (Division of Career Services)

Notice for Computer Lab Exemption for Tech Mahindra Ltd. on-Campus Placement Drive 26th Sept 2016 (9/24/2016)

This is to inform that classes in following Computer Labs are exempted on 26th Sep.2016 from 9 AM To 5 PM due to Campus Placement Drive Online test of Tech Mahindra Ltd.  
11 Block 26-301

Student Attendance - Microsoft Internet Explorer

Address: <http://ums.lpu.edu.in/ums/StudentAttendance.aspx>

Attendance To Day: 12/24/2016 Attendance Type: LAB09 Period Number: 06 To 10 AM

MAHINDRA MAHINDRA

Sl. No.	Registration Number	Name	Term	Section	Student Group	Course Code	Roll Number	Mark	Attendance
1	10000991	Anshika Sharma	100001	202	1	NT102	R002A01	Present	Yes
2	10001125	Babubhai Singh	100001	202	1	NT102	R002A02	Present	Yes
3	10001345	Rishi Dabherwal	100001	202	1	NT102	R002A03	Present	Yes
4	10001004	Bhav VJ	100001	202	1	NT102	R002A04	Present	Yes
5	10007032	Adya Puri	100001	202	1	NT102	R002A05	Present	Yes
6	10004486	Vijay Kumar	100001	202	1	NT102	R002A06	Present	Yes
7	10003951	Deepika Kundra	100001	202	1	NT102	R002A07	Present	Yes
8	10001117	Pooja Goyal	100001	202	1	NT102	R002A08	Present	Yes
9	10001075	MANOJ KUMAR	100001	202	1	NT102	R002A09	Present	Yes
10	10004069	Vijay Singh Bajpai	100001	202	1	NT102	R002A10	Present	Yes
11	10003216	Anu Singh	100001	202	1	NT102	R002A11	Present	Yes
12	10004200	Ramandeep	100001	202	1	NT102	R002A12	Present	Yes
13	10004201	Harveen Kaur	100001	202	1	NT102	R002A13	Present	Yes
14	10010556	Malakshya Pandey	100001	202	1	NT102	R002A14	Present	Yes
15	10002411	Devil Kumar	100001	202	1	NT102	R002A15	Present	Yes
16	10003994	Pooja Singh	100001	202	1	NT102	R002A16	Present	Yes
17	10001050	Nayab Singh	100001	202	1	NT102	R002A17	Present	Yes
18	10003672	BEHAN PAMWA	100001	202	1	NT102	R002A18	Present	Yes

LPU Mobile

Next Class

activated at 10 minutes

Section CODE: 33-601

11

deactivated

Next Lecture

LPU Mobile

Next Class

activated at 10 minutes

Section CODE: 33-601

11

deactivated

Next Lecture

LPU Mobile

Assignment Upload - Microsoft Internet Explorer

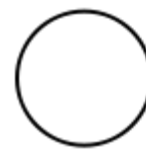
Address: <http://ums.lpu.edu.in/ums/AssignmentUpload.aspx>

Assignment Upload to Students

Sl. No.	Section	Course Code	Course Name	Term	Group	Registration Number	Course Code	Roll Number	Student Name	Program Code	Upload Status
1	270	CSE01A	General Presentation	100001	1	10000991	NT102	1000431	Anshika Sharma	207	Upload Link
2	270	CSE01A	General Presentation	100001	2	10001125	NT102	1000432	Babubhai Singh	207	Upload Link
3	277	CSE01C	Analysis & Design of Information Systems	100001	1	10001345	NT102	1000433	Rishi Dabherwal	207	Upload Link
4	277	CSE01C	Analysis & Design of Information Systems	100001	2	10001004	NT102	1000434	Bhav VJ	207	Upload Link
5	278	CSE02C	Analysis & Design of Information Systems	100001	1	10007032	NT102	1000435	Adya Puri	207	Upload Link
6	279	CSE02C	Analysis & Design of Information Systems	100001	2	10004486	NT102	1000436	Vijay Kumar	207	Upload Link
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74	306	NT102	Elements of IT	100001	2	10010556	NT102	1000504	Malakshya Pandey	207	Upload Link
75	300	NT102	Elements of IT	100001	1	10002411	NT102	1000505	Devil Kumar	207	Upload Link
76	300	NT102	Elements of IT	100001	2	10003994	NT102	1000506	Pooja Singh	207	Upload Link
77	302	NT102	Elements of IT	100001	1	10001050	NT102	1000507	Nayab Singh	207	Upload Link
78	302	NT102	Elements of IT	100001	2	10003672	NT102	1000508	BEHAN PAMWA	207	Upload Link
79	300	NT102	Elements of IT	100001	1	10004201	NT102	1000509	Harveen Kaur	207	Upload Link
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81	300	NT102	Elements of IT	100001	1	10002411	NT102	1000511	Devil Kumar	207	Upload Link
82	300	NT102	Elements of IT	100001	2	10003994	NT102	1000512	Pooja Singh	207	Upload Link
83	302	NT102	Elements of IT	100001	1	10001050	NT102	1000513	Nayab Singh	207	Upload Link
84	302	NT102	Elements of IT	100001	2	10003672	NT102	1000514	BEHAN PAMWA	207	Upload Link
85	300	NT102	Elements of IT	100001	1	10004201	NT102	1000515	Harveen Kaur	207	Upload Link
86	306	NT102	Elements of IT	100001	2	10010556	NT102	1000516	Malakshya Pandey	207	Upload Link



Selected	RegistrationNumber	Name	TermId	Section	StudentGroup	CourseCode	RollNumber	Mark Attendance
<input type="checkbox"/>	10000001	Anshul Sharma	100001	202	1	INTK02	R000A01	Present
<input type="checkbox"/>	10000125	Balinder Singh	100001	202	1	INTK02	R000A02	Present
<input type="checkbox"/>	10000345	Rishi Sahasrwal	100001	202	1	INTK02	R000A03	Present
<input type="checkbox"/>	10000004	Bharti Viji	100001	202	1	INTK02	R000A04	Present
<input type="checkbox"/>	10007032	Ashu Paul	100001	202	1	INTK02	R000A05	Present
<input type="checkbox"/>	10004006	Vijay Kumar	100001	202	1	INTK02	R000A06	Present
<input type="checkbox"/>	10000051	Deepika Ramesh	100001	202	1	INTK02	R000A07	Present
<input type="checkbox"/>	10001117	Priya Gopi	100001	202	1	INTK02	R000A08	Present
<input type="checkbox"/>	10000075	MANU KUMAR	100001	202	1	INTK02	R000A09	Present
<input type="checkbox"/>	10000490	Vijay Singh Baghel	100001	202	1	INTK02	R000A10	Present
<input type="checkbox"/>	10000216	su singh	100001	202	1	INTK02	R000A11	Present
<input type="checkbox"/>	10004000	Ramandeep	100001	202	1	INTK02	R000A12	Present
<input type="checkbox"/>	10004200	Hemant Kaur	100001	202	1	INTK02	R000A13	Present
<input type="checkbox"/>	10010050	Mukundwar Pathak	100001	202	1	INTK02	R000A14	Present
<input type="checkbox"/>	10002411	Gurjit Kumar	100001	202	1	INTK02	R000A15	Present
<input type="checkbox"/>	10004004	Pratap Singh	100001	202	1	INTK02	R000A16	Present
<input type="checkbox"/>	10000005	Naveed Singh	100001	202	1	INTK02	R000A17	Present
<input type="checkbox"/>	10000672	REHAN PIVANIA	100001	202	1	INTK02	R000A18	Present



Function



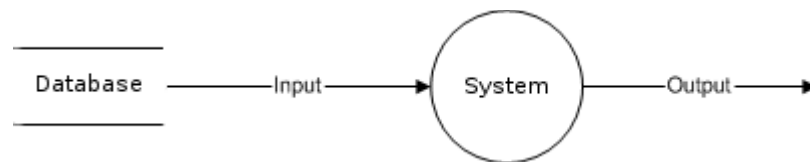
File/Data base



Input/Output



Flow



### Data Flow Diagram :-

Data flow diagram is a graphical representation of data flow in an information system. It is capable of depicting incoming data flow, outgoing data flow and stored data. The DFD does not mention anything about how data flows through the system.

There is a prominent difference between DFD and Flowchart. The flowchart depicts flow of control in program modules. DFDs depict flow of data in the system at various levels. DFD does not contain any control or branch elements.

Types of DFD Data Flow Diagrams are either Logical or Physical.

■ Logical DFD - This type of DFD concentrates on the system process and flow of data in the system. For example in a Banking software system, how data is moved between different entities. ■ Physical DFD - This type of DFD shows how the data flow is actually implemented in the system. It is more specific and close to the implementation.

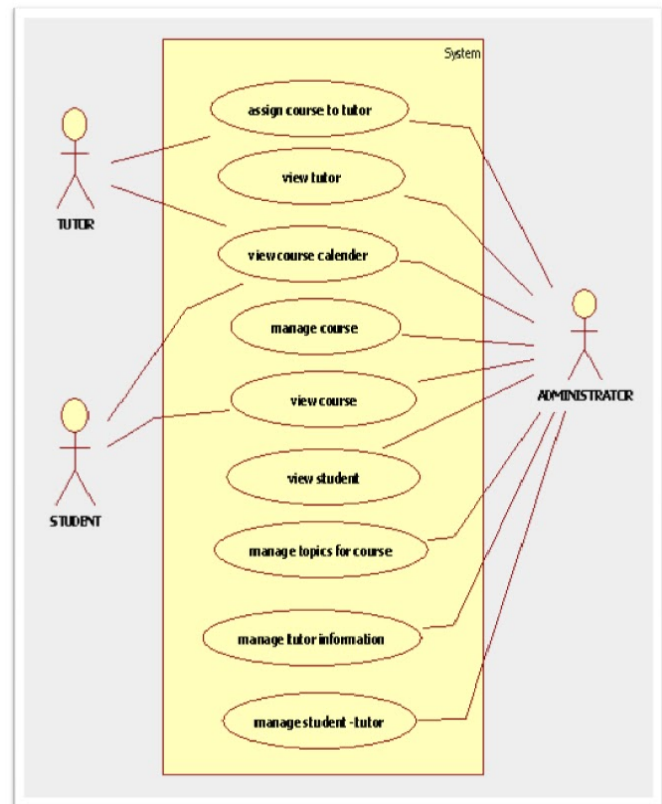
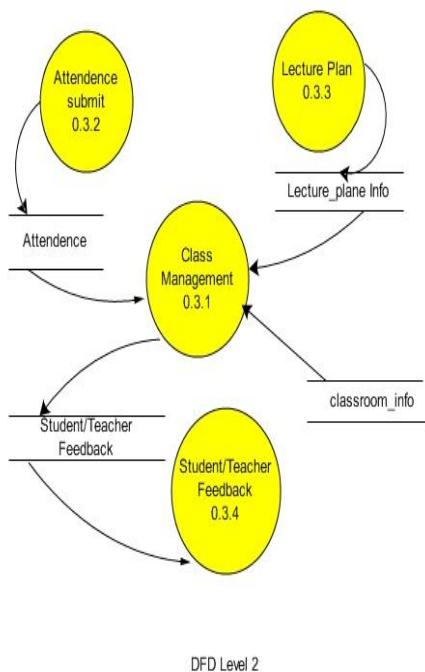
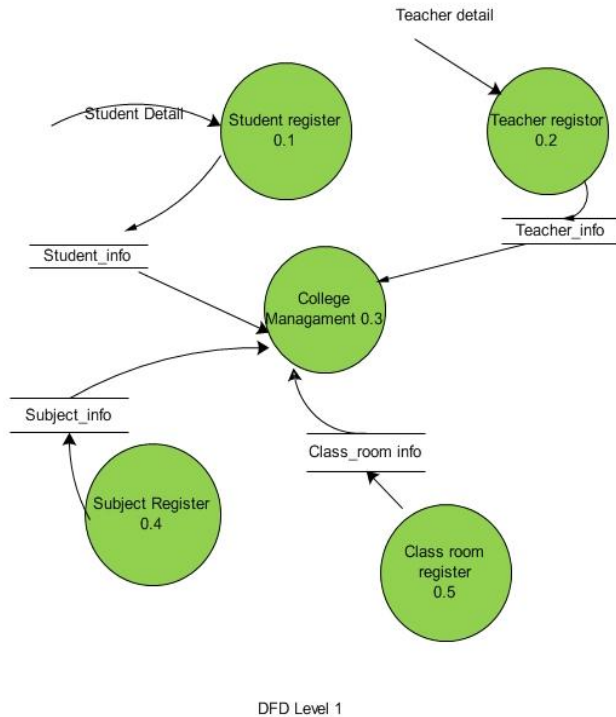
### Symbols used in DFD

### Importance of DFDs in a good software design

The main reason why the DFD technique is so popular is probably because of the fact that DFD is a very simple formalism – it is simple to understand and use. Starting with a set of high-level functions that a system performs, a DFD model hierarchically represents various sub-functions. In fact, any hierarchical model is simple to understand. Human mind is such that it can easily understand any hierarchical model of a system – because in a hierarchical model, starting with a very simple and abstract model of a system, different details of the system are slowly introduced through different hierarchies. The data flow diagramming technique also follows a very simple set of intuitive concepts and rules. DFD is an elegant modeling technique that turns out to be useful not only to represent the results of structured analysis of a software problem, but also for several other applications such as showing the flow of documents or items in an organization.

## Unified Modeling Language (UML):-

UML, as the name implies, is a modeling language. It may be used to visualize, specify, construct, and document the artifacts of a software system. It provides a set of notations (e.g. rectangles, lines, ellipses, etc.) to create a visual model of the system. Like any other language, UML has its own syntax (symbols and sentence formation rules) and semantics (meanings of symbols and sentences). Also, we should clearly understand that UML is not a system design or development methodology, but can be used to document object-oriented and analysis results obtained using some methodology.



## Coding:-

The objective of the coding phase is to transform the design of a system into code in a high level language and then to unit test this code. The programmers adhere to standard and well defined style of coding which they call their coding standard. The main advantages of adhering to a standard style of coding are as follows:

- A coding standard gives uniform appearances to the code

Written by different engineers

- it facilitates code of understanding.

- promotes good programming practices.



For implementing our design into a code, we require a good high level language. A programming language should have the following features:

#### Characteristics of a Programming Language

■ **Readability:** A good high-level language will allow programs to be written in some ways that resemble a quite-English description of the underlying algorithms. If care is taken, the coding may be done in a way that is essentially self-documenting.

■ **Portability:** High-level languages, being essentially machine independent, should be able to develop portable software.

■ **Generality:** Most high-level languages allow the writing of a wide variety of programs, thus relieving the programmer of the need to become expert in many diverse languages.

■ **Brevity:** Language should have the ability to implement the algorithm with less amount of code. Programs expressed in high-level languages are often considerably shorter than their low-level equivalents.

■ **Error checking:** Being human, a programmer is likely to make many mistakes in the development of a computer program. Many high-level languages enforce a great deal of error checking both at compile-time and at run-time.

■ **Cost:** The ultimate cost of a programming language is a function of many of its characteristics.

#### B. Hardware Interfaces

#### Hardware Interfaces Server Side:

- ✓ ☐ Operating System: Windows 9x/ xp, Windows ME
- ✓ ☐ Processor: Pentium 3.0 GHz or higher
- ✓ ☐ RAM: 256 Mb or more
- ✓ ☐ Hard Drive: 10 GB or more

#### Hardware Interface Client side:

- ✓ ☐ Operating System: Windows 9x or above, MAC or UNIX.
- ✓ ☐ Processor: Pentium III or 2.0 GHz or higher.
- ✓ ☐ RAM: 256 Mb or more

#### Software Interfaces

- ✓ Database: SQL Server.

- ✓ ☐ Application: ASP (Active Server Pages)

#### V. OTHER NONFUNCTIONAL REQUIREMENTS

##### A. Performance Requirements

The proposed system that we are going to develop will be used as the Chief performance system within the different campuses of the university Which interact with the university staff and students. Therefore, it is expected that the database would perform functionally all the requirements that are specified by the university

#### 5.2 Safety Requirements:-

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

#### 5.3 Security Requirements

We are going to develop a secured database for the university. There are different categories of users namely teaching

Administrator, Staff members and students etc.

Depending upon the category of user the access rights are decided. It means if the user is an administrator then he can be able to modify the data, delete, append etc. All other users other than University Staff only have the rights to retrieve the information about database.

#### A. Software Quality Attributes

The Quality of the database is maintained in such a way so that it can be very user friendly to all the users of the database

#### 5.5 Hardware Constraints:-

The system requires a database in order to store persistent data. The database should have backup capabilities

### **5.6 Software Constraints: -**

The development of the system will be constrained by the availability of required software such as web servers, database and development tools. The availability of these tools will be governed by the Lovely Professional University.

### **5.7 Design Constraints:-**

The system must be designed to allow web usability. That is, the system must be designed in such a way that will be easy to use and visible on most of the browsers

## **VI. OTHER REQUIREMENTS**

### **6.1 Availability:-**

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system

Runs. In case of a of a hardware failure or database corruption, a replacement page will be shown. Also in case of a hardware failure or database corruption, backups of the database should be retrieved with the MySQL server and saved by the administrator.

### **6.2 Maintainability:-**

MySQL is used for maintaining the database and the Apache server takes care of the site. In case of a failure, a re-initialization of the program is recommended.

### **6.3 Portability:-**

The application is Linux-based and should be compatible with other systems. Apache, PHP and MySQL programs are practically independent of the OS-system which they communicate with. The end-

user part is fully portable and any system using any web browser should be able to use the features of the application.

### **6.4 ACID Properties:-**

The Online fees payment software must be able to use several data formats according to the data formats that are provided by the data bases of different banks. A transaction should have all the properties of a data base transaction (Atomicity, Consistency, Isolation, and Durability).

## **CONCLUSION:**

After processing through all phases of the system Development life cycle, the portal is developed. In Future it will be hosted on the internet server which Will be accessed by all people in the world and can View the site and learn as much as news and Information about the university. The Administrator or Editor who will be assigned for editing or managing Or controlling will be given the secure login Information and will change or modify the website.As per the requirements.