

Online Payment Bill Generator



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Session: 2012-2014

DEPARTMENT OF COMPUTER SCIENCE & IT
The Islamia University of Bahawalpur
Bahawalnagar Campus



All Praised Are For

*The most beneficent, who guides us in the darkness and helps in difficulties,
Without this help one can never achieve destination.*

All Respects Are For His

HOLLY PROPHET HAZRAT MUHAMMAD (P.B.U.H)

Who enlighten out the minds to recognize our creature.

FINAL APPROVAL

It is to certify, that we have gone through this project report that is submitted by Burhan-ul-Haqq Zahir Roll #45 Sessions 2012-2014. Our judgment is that this Project is up to the standard to warrant its acceptance by the Islamia University Bahawalpur for the MCS Degree Computer Science.

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DEDICATION

I dedicate this project to two persons:

Sir Muhammad Suleman & My Love

Both of these helped me in securing my career and I would be worthless if they have not helped me. Due to encouragement and motivation of both I completed this degree and project successfully. The paper pattern of Sir Muhammad Suleman was unique and second to none. I completed my project before time to get her but I could not. She always advised me to complete the project so that new life could be started.

I am greatly thankful to both of these for their unceasing encouragement and support.

May both live long and gather as much happiness as they can.

PROJECT BRIEF

PROJECT NAME: Online Payment Bill Generator

OBJECTIVE: To provide the facility to the teachers to generate the requisition form and pay bill form.

Project Started:

April 29, 2014

Project Finished:

September 7, 2014

Source Language:

C#, CSS3, HTML, JavaScript and XML

Operating system:

Windows XP, Vista, 7, 8

ACKNOWLEDGMENT

First of all I praise and pray the almighty **ALLAH** who blessed us with courage, ability and opportunity to follow the path of the knowledge seekers. Without guidance we must not have been able to move even a step forward. May **ALLAH** guide and help us throughout our life shower his blessings.

Up and above everything, I am grateful almighty **ALLAH**, The beneficent, the merciful, and his Holy Prophet Hazarat **MUHAMMAD** (peace be upon him) who is forever true light of guidance for whole humanity. I am greatly obliged “**ALLAH**” by whom grace I have been able to complete this project successfully.

I feel much obliged to our families, whom prayers and good wishes have enabled me to reach at this stage. My success is the result of the Technical Guidance, invaluable comments and moral support of my supervisor Mr. Muhammad Suleman whose efforts and for the students are not only for projects but also throughout the session. I am very thankful to him for taking such a pain for me. I extend my thanks to all my teachers from whom I learn a lot during the session and their nice behavior and attitude always encouraging me for learning.

Burhan-ul-Haqq Zahir
Roll No: 45
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2012-214

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Chapter No.1

1 INTRODUCTION

In this chapter these topics are covered:

- Introduction of organization
- Domain of the project
- Objectives

1.1 Introduction of organization:

In pursuance of policy of the government to provide quality education at door step of the inhabitants of remote areas, the Bahawalnagar campus was established in 2005. The campus has been housed in a borrowed building of Comprehensive High School which has been refurnished and renovated properly.

It was decided to launch demand driven and market based programs. Accordingly, the Departments of Management Sciences and Computer Sciences & IT were established in the first phase. Now nine departments are functional with 13 different programs in morning and evening. The campus offers very conducive environment and is equipped with all facilities like two most modern computer labs, internet, multimedia, scanner and library. Recently, the facilities of digital library and video conference have been provided. The campus has three hostels for students: One for boys and two for girls having capacity of 175 students. Moreover, a hostel for faculty members has been established to provide comfortable accommodation to the outstation teachers.

The campus has its two buses and a coaster to provide transportation facility to the students, staff and faculty.

In order to establish a permanent campus, 50 acre land has been transferred by Government of the Punjab to the university campus. The CDWP has already approved Rs.409 million for the development and construction of the campus building at Bahawalnagar. The construction work of the project has been started.

Note:

The program structure, eligibility, admission criteria, fee structure and other rules & regulations being practiced at Bahawalpur campus will also be applicable in the respective Departments at Bahawalnagar Campus.

1.2 Problem Statement:

To understand the problem statement we have to discuss the pay method.

First of all each teacher get the Requisition Form Figure 1.1

And fill the form.

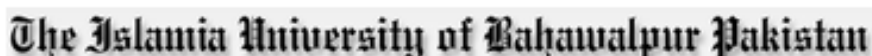
Problem: at the time of filling form it is difficult to remember the course code, credit hours etc.

After filling this form HOD collect whole faculty requisition forms and then send these forms to main campus to validate. After validation each teacher has to fill the pay bill form figure 1.2.

Problem: at the time of filling this form it is more difficult than requisition form to do this because of the complexity of the pay bill. Redundancy and concurrency may occur while filling this form manually. For example if subject 1 has been selected by a teacher it may be selected by another by mistake.

To resolve these type of all problems and providing the facility to do this using software. It is decided to computerize this procedure of filling these forms.

Due to the security all control will be in the hand of permanent faculty only. Outsider and visiting faculty cannot access to this application.



Dated:

Instruction on the Form

1. Only one form will be completed in respect of one teacher in one semester.
2. All courses, whether in the department or outside of the Department proposed for the teacher will be entered in the Form.
3. The Form will be submitted with the signature of the Chairperson/Head of Department through the Dean.
4. The form must be filled and submitted for Vice-Chancellor's Approval within 15 days of the start of the semester.

Approval is solicited to the following Part-Time/Visiting faculty of teaching the classes as detailed below:

1. **Name of Teacher:** Muhammad Suleman 2. **Designation:** Lecturer
 3. **Department:** Computer Science & IT 4. **Semester/Session:** Spring-2015
 5. **Status:** _____

Permanent ☐ Contract ☐ Visiting ☐

6. Work Load of Regular/Contract Teacher:

Sr No	Title of the Course	Course Code	Course Credit Hrs	Approved	Not Approved
I	Regular Course(s)				
1					
II	Part Time Course(s)				
1					

III.	Additional Part-Time Course(s) requested due to foreign degree/qualification as listed.
------	---

Foreign Degree	Date of Degree

Sr. No	Part-Time Courses(s)	Course Code	Course Credit Hrs	Approved	Not Approved
1					
2					

IV. Visiting Faculty Teaching Request:

Particular of visiting faculty:

Degree	Specialization Subject	Division
--------	------------------------	----------

Sr No	Visiting Faculty Course(s)	Course Code	Course Credit Hrs	Approved	Not Approved
1					

V. Certification & Verification:

It is certified that the teacher concerned is teaching required teaching load as indicated above and only two additional Courses as part time as per University Policy.

Filed By: _____ Dated: _____
Name & Signature

Verified By: _____ Dated: _____
Name & Signature of Chairperson/Head of Department

Recommendation By Dean: _____ Dated: _____
Signature of Dean

Approved by the Vice Chancellor

Total Course		Approved		Not Approved	
--------------	--	----------	--	--------------	--

Vice-Chancellor

Figure 1.1



The Islamia University of Bahawalpur Pakistan

Bahawalnagar Campus
Department of Computer Science & IT
Visiting Teacher's Bill For Spring Semester 2015

Teacher: Naila Kanwal

Designation: Lecturer

HBL Bank A/c No. 7979676977i

Program/ Semester	Subject/Course Code	Credit Hour	For the Month of	Dates of Lecture Delivered												Total Lectures Delivered	Rate Per Lectures	Total Amount	Income Tax @7%	Net Amount Payable	ECR P.# (Official Use)
MCS (Morning) Semester No:2	Data Structures & Algorithms CSIT-21201	3(2+1)	January	7	14	21	28	27	20	13	6				8	784	6272	439	5833		
			December	2	3	10	17	24	31	30	23	16	9		10		7840	548	7292		
			Total= 1												18		14112	987	13125		
MCS (Morning) Semester No:4	Compiler Construction CSIT-21403	3(2+1)	November	5	12	19	26	25	18	11	4				8	784	6272	439	5833		
			December	23	16	4	17	10							5		3920	274	3646		
			January	14	20	13	6								4		3136	219	2917		
			Total= 2												17		13328	932	12396		
			Grand Total (All Courses)												35		27440	1919	25521		

Signature of Claimant _____

Bill verified & forwarded for payment
 Certified that the above mentioned teacher delivered
 the Lecturers as mentioned against each month and duration of each
 lecture is 90 minute

Head of Department

Director Campus

Figure 1.2

1.3 Objectives:

Easy interface to assign course to a teacher.

Only permanent faculty can assign courses to visiting faculty.

Allow the permanent faculty to see all assigned courses by any permanent faculty.

Allow the permanent faculty to delete any assigned course by any permanent faculty.

Allows to add attendance using simple interface.

Allow to print permanent and visiting faculty Requisition Form.

Allow to print permanent and visiting faculty Payment Bill.

Permanent faculty forms can be generated by that teacher only

Visiting faculty form can be generated by any permanent teacher.

A horizontal banner with a light orange background and a darker orange border. The text "Chapter No.2" is written in a large, red, serif font, centered within the banner.

Chapter No.2

2 Software Requirements Specification / Analysis

Analysis is the main part of project development. Most of the time spent in project development is given to analysis. System analysis was done using prototyping and object oriented methodology.

2.1 Requirement Methodology

All requirements can be gather by HOD of the Department of Computer Science of Islamia University of Bahawalpur Sub Campus Bahawalnagar. If there is any problem then phone call is allowed. Otherwise all requirement can be received on Facebook by chatting when they available. If face to face meeting requirement developer team have to come to Department.

2.2 Hardware Requirements

Sr. No.	Description
HR-1	Web Server that support 4.0 .NET FRAMEWORK
HR-2	PC to Access and update the Application
HR-3	Printer to print the forms

2.3 Software Requirements

Sr. No.	Description
SYSR-1	An application is required to integrate the bill generator system
SYSR -2	Database access that should contain Campus Data (Departments, Programs list, Course and Faculty)

2.4 Development Requirements

Sr. No.	Equipment	Description
DR-1	Operating System	Windows XP, 7 and 8.1
DR-2	Development Tools	Visual Studio 2010 with 4.0 .NET FRAMEWORK, SQL Server 2008, Photoshop 7.0, color picker and text editors
DR-3	Development Technologies	C#, XML, CSS3 JavaScript

2.5 System Requirements

Sr. No.	Description
SR-1	System should available only for register users (permanent faculty)
SR-2	System should assign courses to permanent faculty
SR-3	System should assign courses to visiting faculty
SR-4	System should create its own file base storage
SR-5	System should allow to select course as "Work Load" or "Part Time"
SR-6	System should disable selected course
SR-7	System should keep 4 year record
SR-8	System should allow any logged in person to see all selected courses
SR-9	System should allow any logged in person to delete any selected course of visitor faculty
SR-10	Permanent and visiting faculty course assignment should be separate
SR-11	Print of the requisition form should be same as sample
SR-12	HBL back account no, tax rate and rate per lecture should be required fields
SR-13	Attendance system for selected courses should be as easy as possible
SR-14	Print of payment bill should be same as sample.

2.6 Use Cases

A use case is a specific way of using the system by using some part of the functionality. Each use case constitutes a complete course of events initiated by an actor and it specifies the interaction that takes place between an actor and the system. A use case is thus a special sequence of related transactions performed by an actor and the system in a dialogue. The collected use cases specify all the existing ways of using the system.

2.6.1 Actors

This is the entity that is outside the system boundary but interacts with the system. The actor I have identified, in my project is:

1. Permanent Faculty

A person who is available in database as Permanent Faculty

2.7 Use Case Diagram

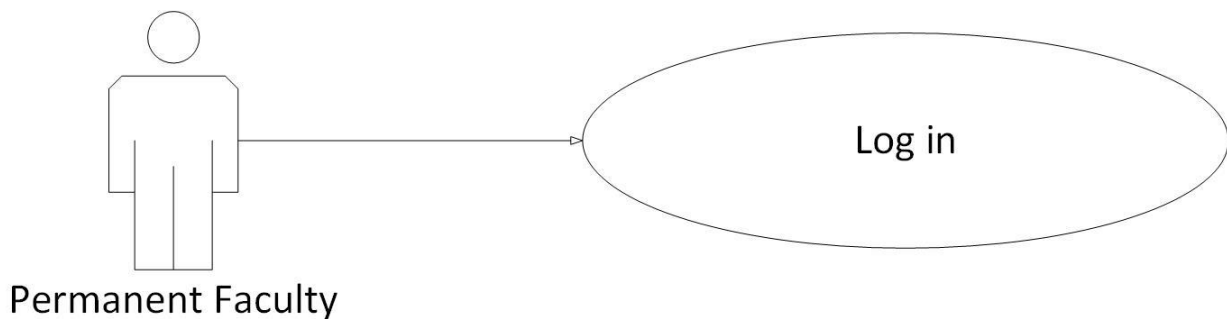
There are some use case diagrams in the project.

2.7.1 User Login

Description:

This use case shows how a user can login to access to the application

Actor: Permanent Faculty



Pre-Conditions: user should have user name and password to access this application

Flow of Events:

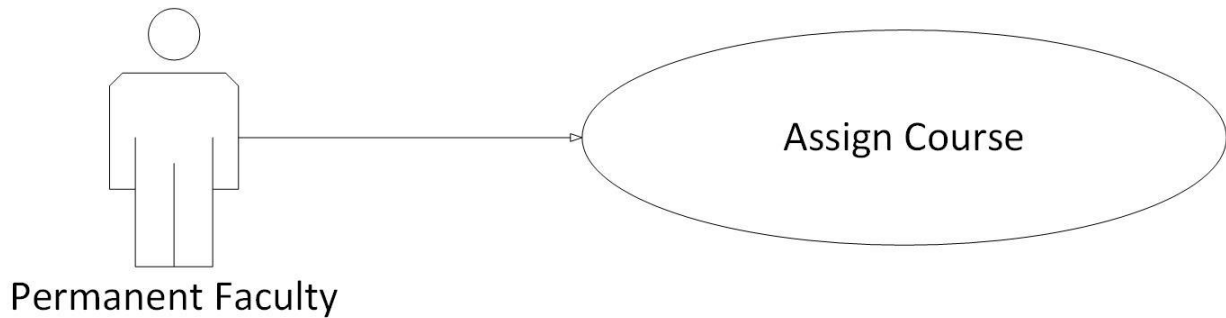
User enter the user name and password in the fields. And click on the login button. Values are send to database to match. If result is true then access is generated otherwise message of invalid information is appear.

2.7.2 Assign course

Description:

This use case shows how a user can assign courses

Actor: Permanent Faculty



Pre-Conditions: user should be login to access this control

Flow of Events:

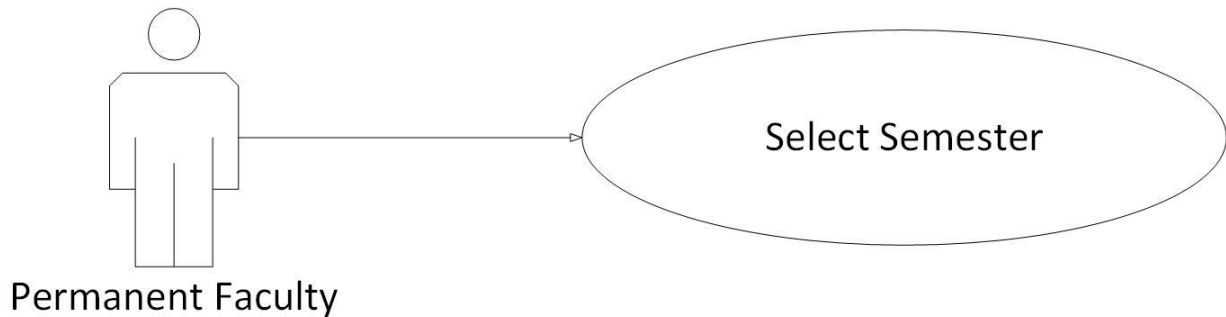
After login user found the link of assign course to assign course to self. Clicking on this link user is redirected to another page that help the use to select course after some selections.

2.7.3 Select Semester

Description:

This use case shows how a user can select a semester for assigning courses related to that semester

Actor: Permanent Faculty



Pre-Conditions: user should be on assign course page

Flow of Events:

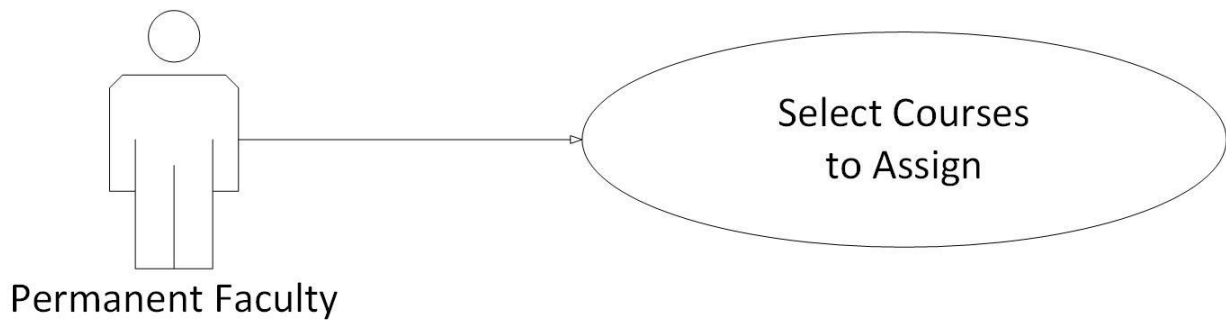
There are two things dropdown list to select year. It helps the user to select the year. And other radio buttons to select the semester for accessing the related courses.

2.7.4 Select Course to Assign

Description:

This use case shows how a user can select course to assign itself.

Actor: Permanent Faculty



Pre-Conditions: year and semester should be selected on assign course page

Flow of Events:

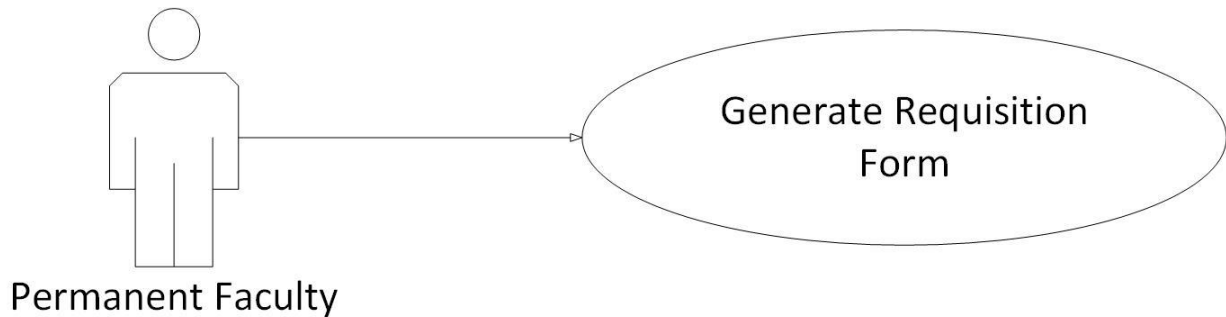
Now select that course you want to assign yourself. Already selected course will be disabled. After selecting course select whether it is work load or part time and click ok button. Selected course will be disabled form list and will be shown in your selected courses list.

2.7.5 Generate Requisition Form

Description:

This use case shows how a user can Generate Requisition form against selected courses.

Actor: Permanent Faculty



Pre-Conditions: Courses that you want to add in the Requisition Form should be in the selected list.

Flow of Events:

Click on the button "Generate Requisition Form" to generate Form.

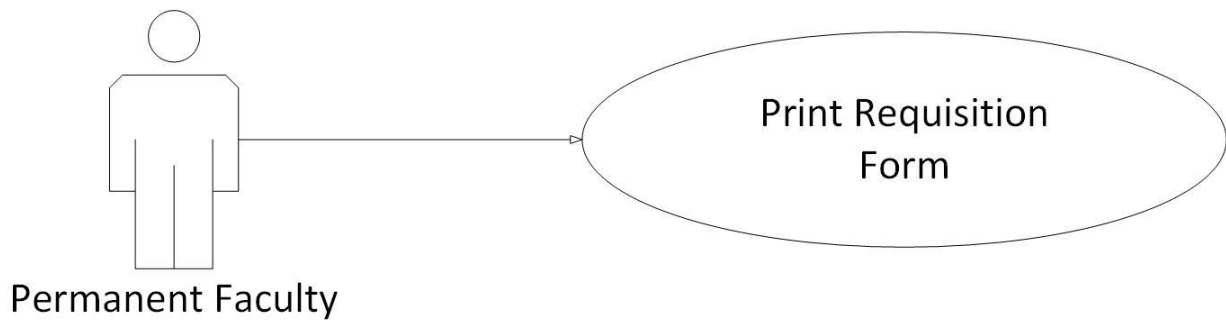
Note: Very first time browser ask for allow add-ons for this site. Select always allow and click again on the button.

2.7.6 Print Requisition Forms

Description:

This use case shows how a user can print the Requisition Form.

Actor: Permanent Faculty



Pre-Conditions: user should be on Requisition Form page.

Flow of Events:

Verify the information shown in the Requisition Form and then click on the button available on the top left corner of the page.

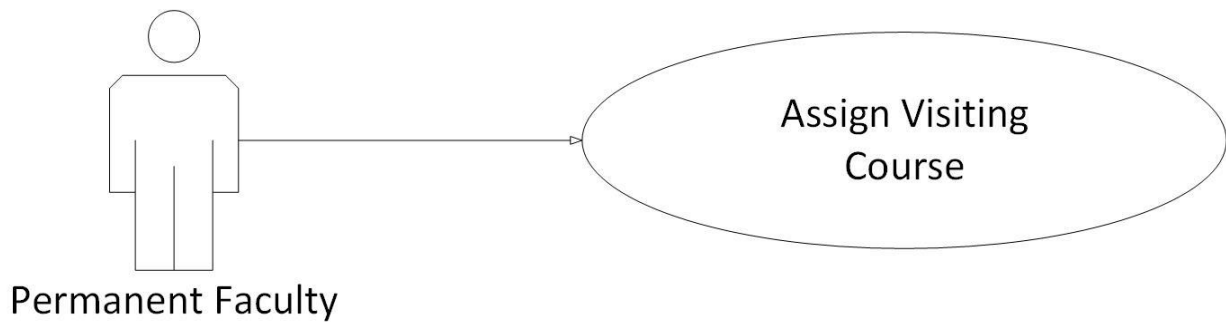
Note: printer setting is up to you.

2.7.7 Assign Visiting course

Description:

This use case shows how a user can assign visiting courses

Actor: Permanent Faculty



Pre-Conditions: user should be login to access this control

Flow of Events:

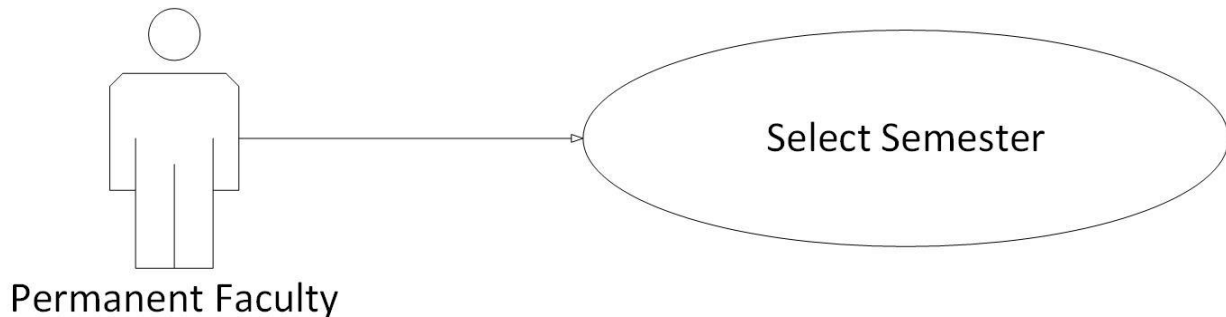
After login user found the link of assign visiting course to assign visiting course to a visitor. Clicking on this link user is redirected to another page that help the use to select course after some selections.

2.7.8 Select Semester

Description:

This use case shows how a user can select a semester to assign visiting courses related to that semester

Actor: Permanent Faculty



Pre-Conditions: user should be on assign visiting course page

Flow of Events:

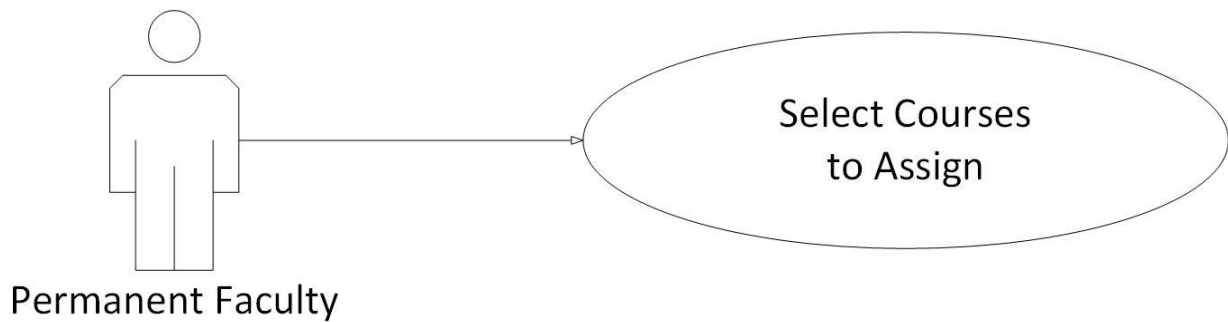
There are three things dropdown list to select visiting faculty. It helps the user to select the visiting teacher whom user want to assign visiting course. A radio button set to select the semester for accessing the related courses. And a dropdown list that is used to select year.

2.7.9 Select Course to Assign

Description:

This use case shows how a user can select course to assign to a visitor.

Actor: Permanent Faculty



Pre-Conditions: faculty, semester and year should be selected on assign visiting course page.

Flow of Events:

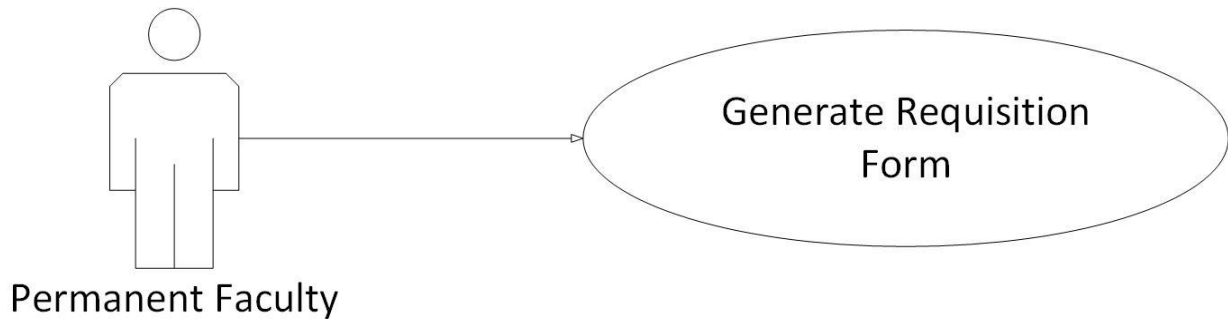
Now select that course you want to assign visitor form dropdown list. Already selected course will not show in dropdown list. To find specific program course change program selection in program dropdown list. After selecting click add course button. Selected course will be removed form dropdown list and will be shown in selected visitor's selected courses list.

2.7.10 Generate Requisition Form

Description:

This use case shows how a user can Generate Requisition form against selected courses.

Actor: Permanent Faculty



Pre-Conditions: Courses that you want to add in the Requisition Form should be in the selected list.

Flow of Events:

Click on the button "Generate Requisition Form" to generate Form.

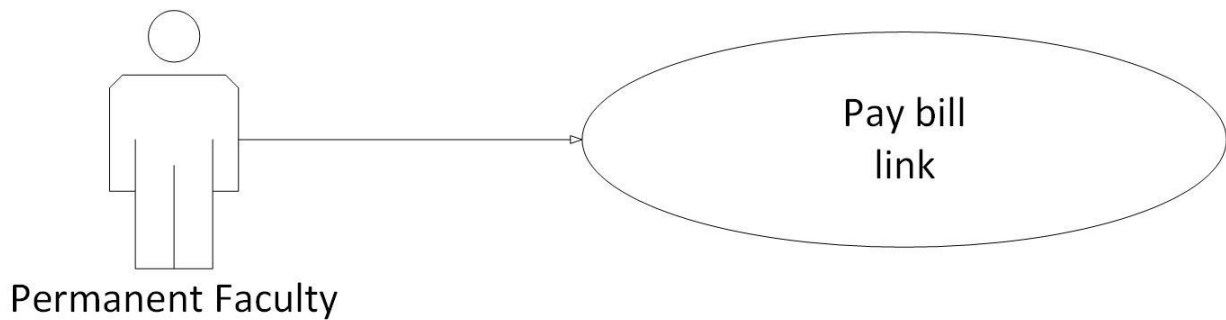
Note: Very first time browser ask for allow add-ons for this site. Select always allow and click again on the button.

2.7.11 Pay Bill Generation

Description:

This use case shows how a user can access to generate Pay Bill.

Actor: Permanent Faculty



Pre-Conditions: user should be login to access this control

Flow of Events:

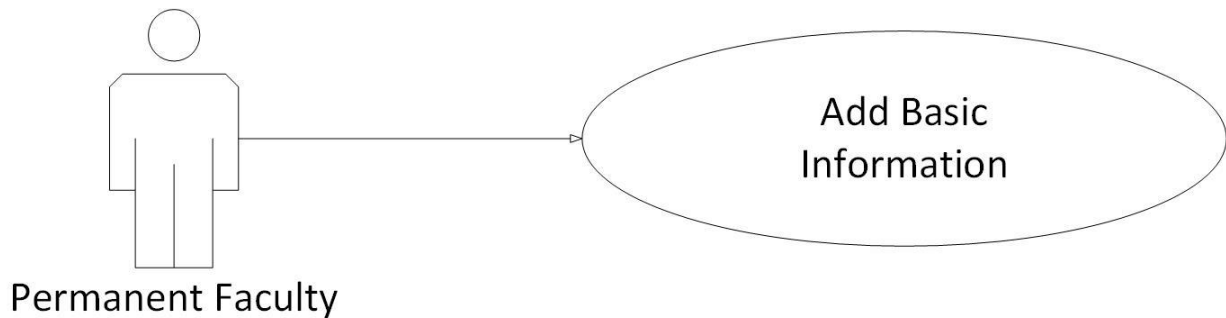
After login user found the link of Pay Bill to access Pay Bill generator control. Clicking on this link user is redirected to another page that help the use to add basic information for Pay Bill.

2.7.12 Add Basic Information

Description:

This use case shows how a user can access to generate Pay Bill.

Actor: Permanent Faculty



Pre-Conditions: user should be on the Pay Bill page.

Flow of Events:

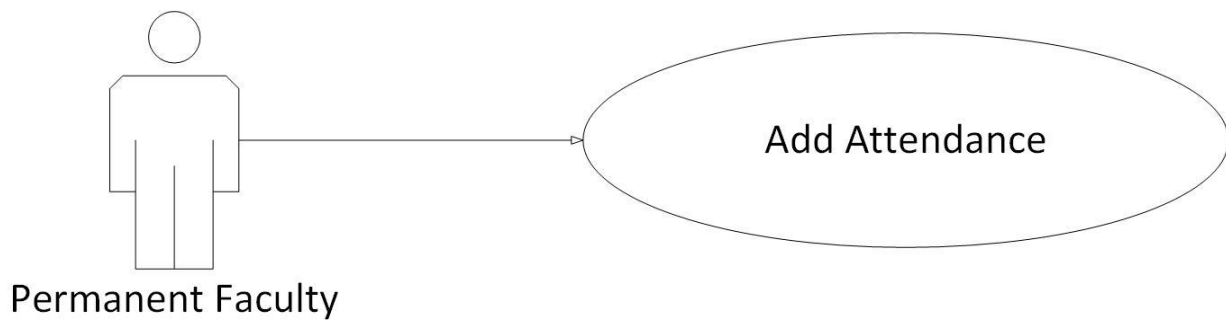
HBL Bank A/c No, Income Tax Rate, Rate Per Lecture, Year and Semester is the basic information. After providing this information click on New Payment Bill Button for Next step.

2.7.13 Add Attendance

Description:

This use case shows how a user can add lecture dates for completing the payment bill.

Actor: Permanent Faculty



Pre-Conditions: After adding basic information user should be on the “Add Lecture Dates” step

Flow of Events:

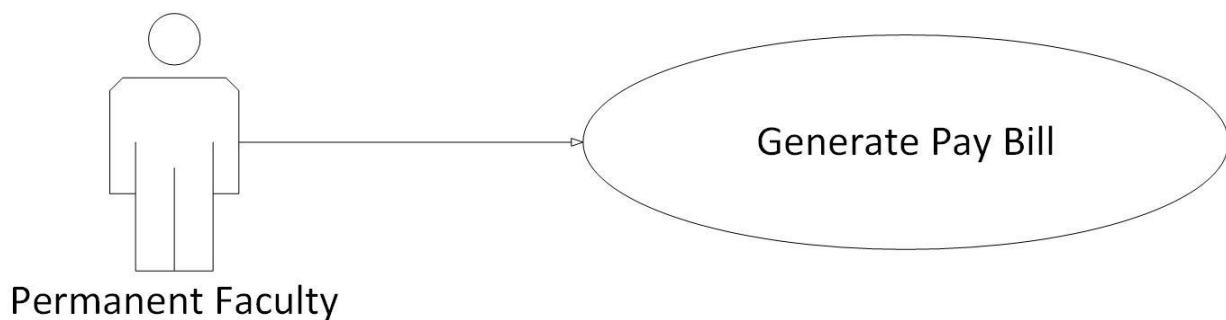
Here now each selected course has a link “add attendance” clicking on this link a calendar is shown that help user to add attendance easily.

2.7.14 Generate Pay Bill

Description:

This use case shows how a user can generate Pay Bill.

Actor: Permanent Faculty



Pre-Conditions: After adding basic information user should be on the “Add Lecture Dates” step.

Flow of Events:

Click on the button “Generate Pay Bill” to generate Form.

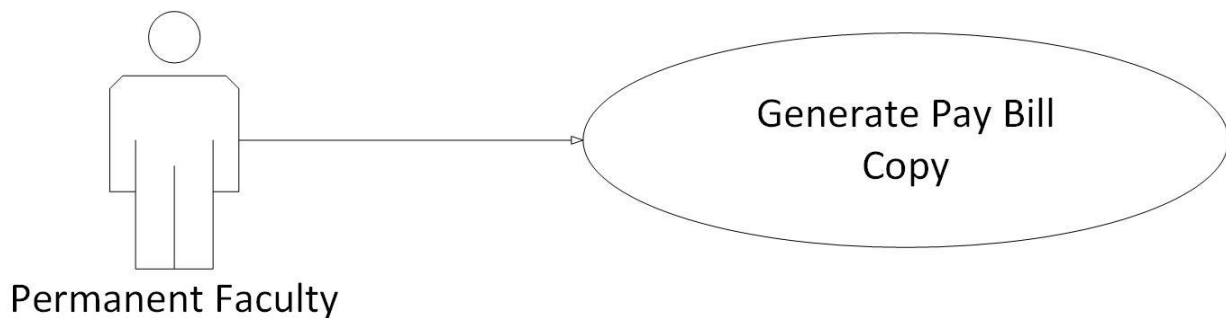
Note: Very first time browser ask for allow add-ons for this site. Select always allow and click again on the button.

2.7.15 Generate Pay Bill Copy

Description:

This use case shows how a user can generate Pay Bill copy.

Actor: Permanent Faculty



Pre-Conditions: already a bill should be generated against selected information otherwise blank copy will be generated without any data.

Flow of Events:

Click on the button "Generate Copy of Pay Bill" to generate Form.

Note: Very first time browser ask for allow add-ons for this site. Select always allow and click again on the button.

.



Chapter No.3

3 SYSTEM DESIGN

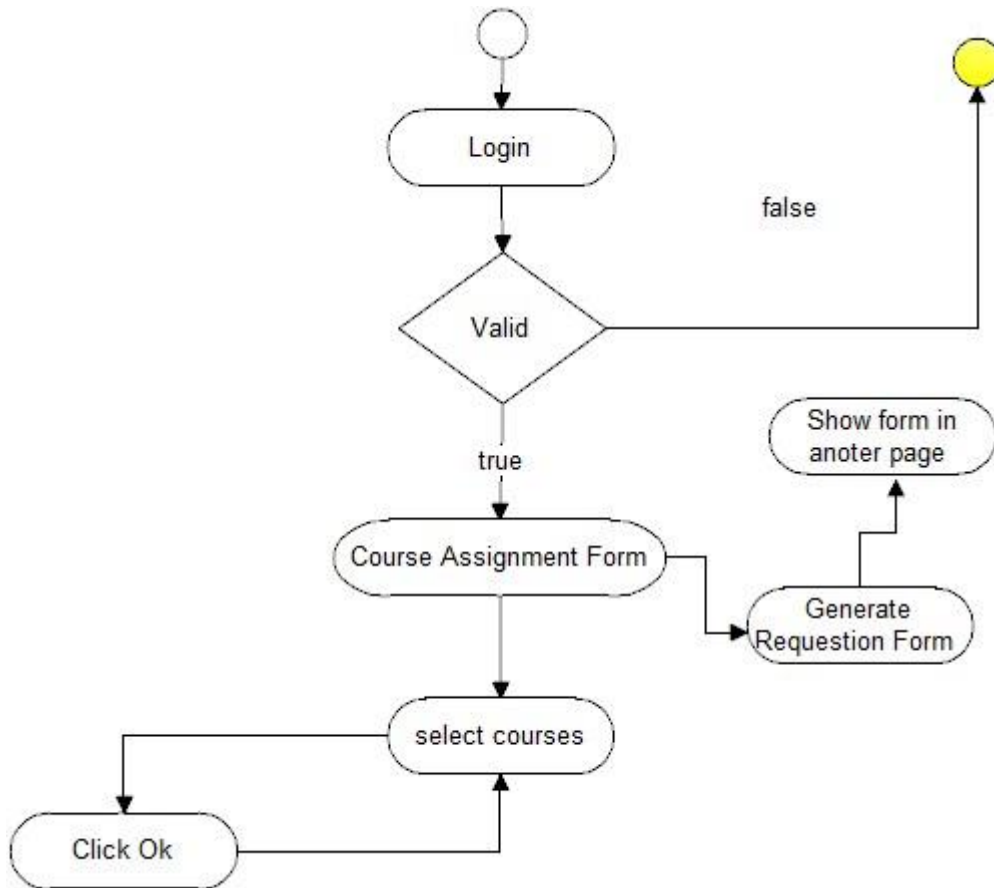
The purpose of design is to create architecture for the evolving implementations. The design phase focuses on defining the software to implement the application. The design objective is to produce a model of the system, which can be used later to build the system. The design goal, is to find the best possible design within the limitations imposed by the requirement and the physical and social environment in which the system will operate.

Object oriented design is a method of design encompassing the process of objects oriented decomposition and a notation for depicting logical and physical as well as static and dynamic models of system under design.

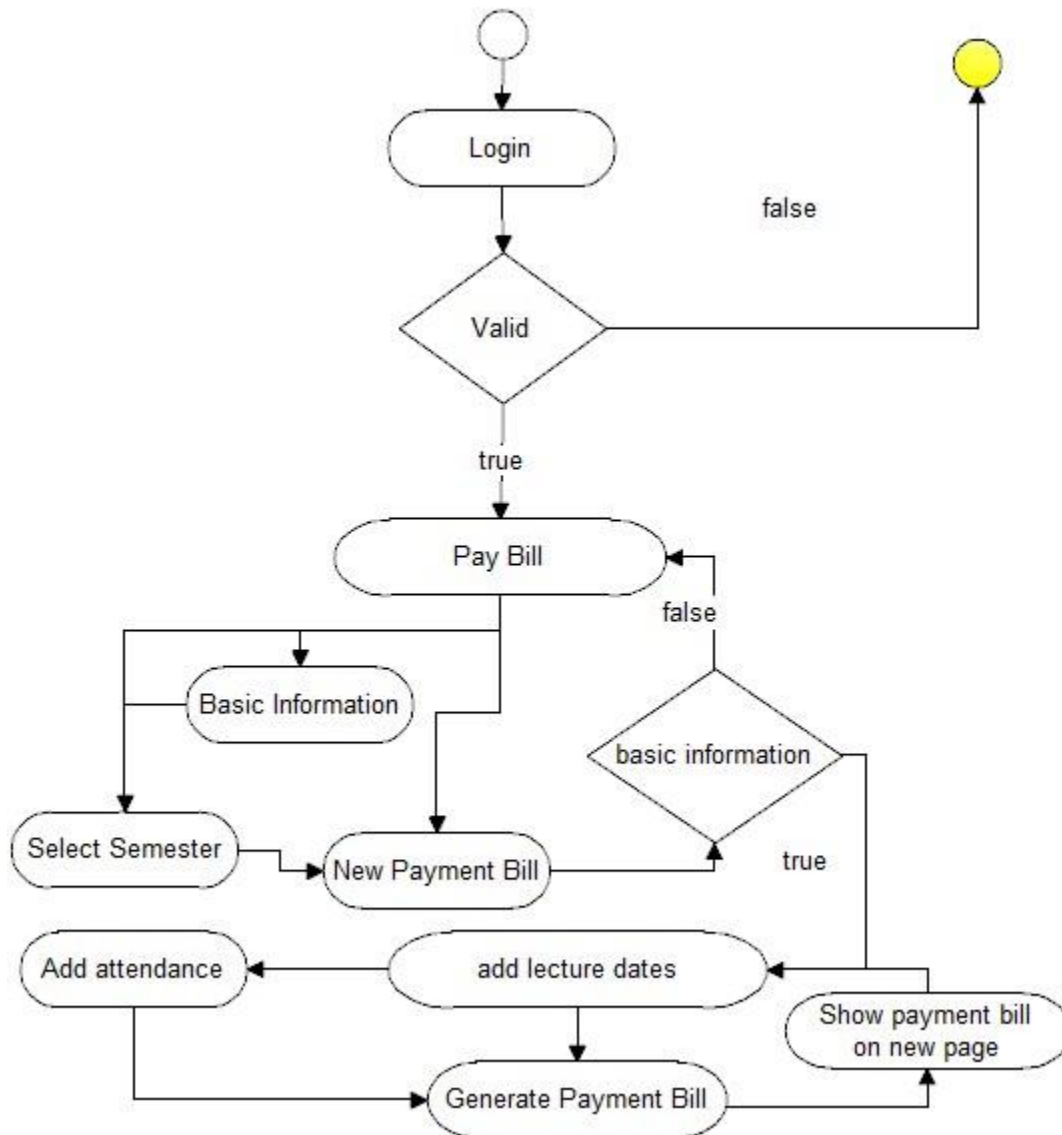
3.1 Activity Diagrams

It gives the pictorial representation for algorithm for function. Activity diagram is used to represent activities present in use cases. Basic need is that we want to make procedural design in UML. Operations in use cases in sequence are represented in activity diagram. Activity diagram are useful when we want to describe a behavior, which is parallel, or when we want to show how behaviors in several use cases interact.

3.1.1 Requisition Form Generator Activity



3.1.2 Pay Bill Generator Activity



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Chapter No.4

4 Storage Design

4.1 Storage Path and Management

All data is stored in a folder “XMLStorage”.

XMLStorage has two sub folders.

1 → IUBFacultyPaymentBills

2 → IUBFacultyRequestionForm

Each IUBFacultyPaymentBills and IUBFacultyRequestionForm has sub directories with department name.

Like: Computer Science & IT

Each department directory contain XML files with Semester_Year name.

Like:

Spring_2014

Fall_2014

Spring_2015

Fall_2015

This all can easily be understand by figure 4.1

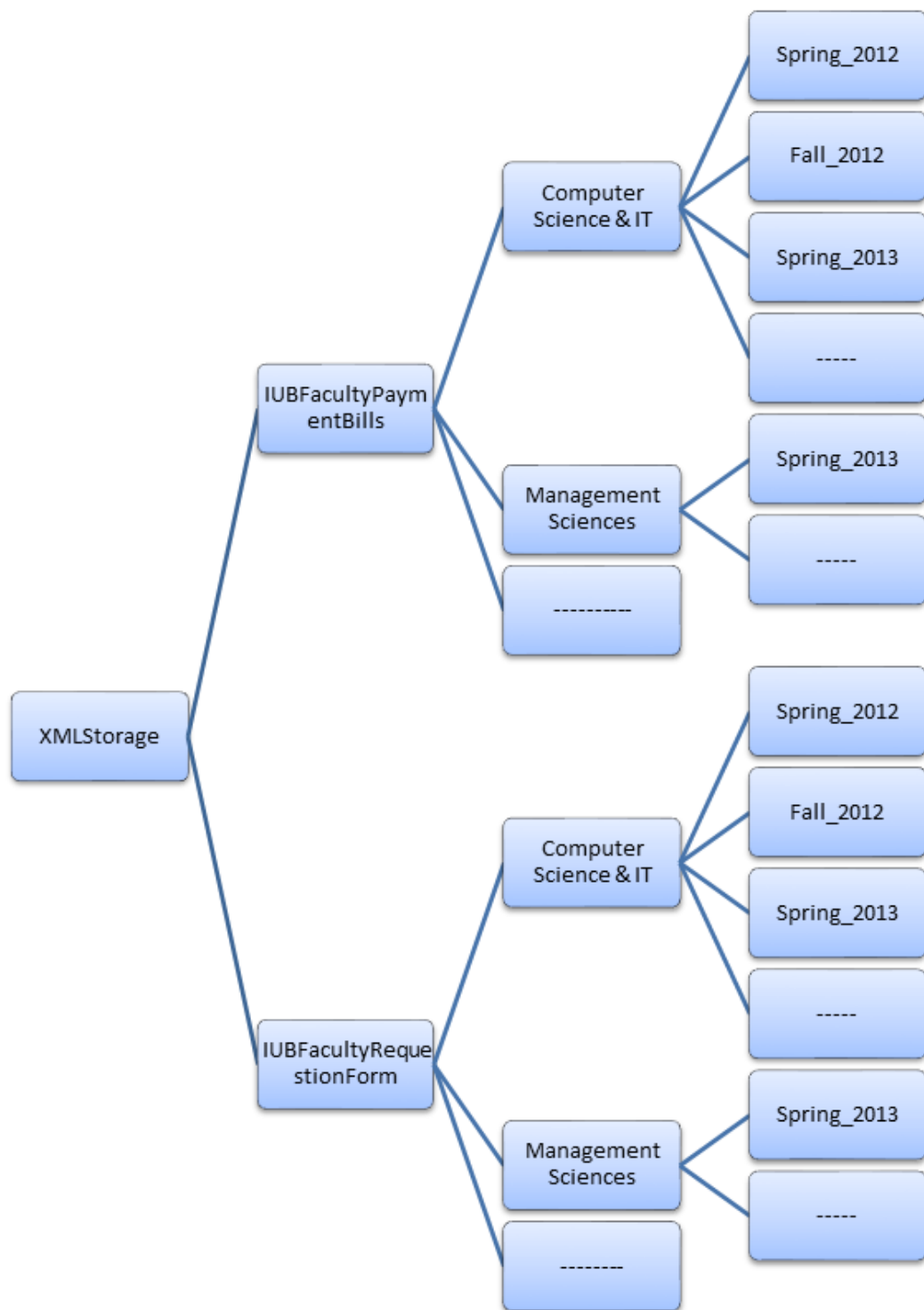


Figure 4.1

Sample code of “IUBFacultyRequestionForm”

```
<IUBFacultyRequestionForm>
  <Teacher Name="Muhammad Suleman" Designation="Lecturer" Department="Computer Science & IT" Status="">
    <Course TitleOfCourse="Introduction to Programming Using C" CourseCode="CSIT-21102"
      CourseCreditHrs="3(2+1)" CourseType="Work Load" SemesterNo="1" SemesterName="MCS (Morning)"
      Year="2015"/>
  </Teacher>
</IUBFacultyRequestionForm>
```

Sample code of "IUBFacultyPaymentBills"

```

<IUBFacultyPaymentBills IncomeTaxRate="7">
<Teacher Name="Ahmad Ali" Designation="Lecturer" Department="Computer Science &
IT" Status="" HBLBankAccountNo="123456789" RatePerLecture="987">
<Semester SemesterName="Fall" Year="2015">
<Course TitleOfCourse="Visual Programming" CourseCode="CSIT-
21303" CourseCreditHrs="3(2+1)" CourseType="Visiting" SemesterNo="3" SemesterName="MCS
(Morning)">
<Month Name="12" TotalLectureDelivered="" TotalAmount="" IncomeTex="" NetAmountPayable
="">
<Date>31</Date>
<Date>24</Date>
<Date>17</Date>
<Date>10</Date>
<Date>3</Date>
<Date>30</Date>
<Date>16</Date>
<Date>9</Date>
<Date>2</Date>
</Month>
<Month Name="1" TotalLectureDelivered="" TotalAmount="" IncomeTex="" NetAmountPayable=
="">
<Date>14</Date>
<Date>7</Date>
<Date>8</Date>
<Date>1</Date>
</Month>
</Course>
<Course TitleOfCourse="Digital Logic Design & Computer Architecture" CourseCode="CSIT-
21101" CourseCreditHrs="3(2+1)" CourseType="Visiting" SemesterNo="1" SemesterName="MCS
(Morning)">
<Month Name="11" TotalLectureDelivered="" TotalAmount="" IncomeTex="" NetAmountPayable
="">
<Date>4</Date>
<Date>11</Date>
<Date>18</Date>
<Date>25</Date>
<Date>26</Date>
<Date>19</Date>
<Date>12</Date>
<Date>5</Date>
</Month>
<Month Name="10" TotalLectureDelivered="" TotalAmount="" IncomeTex="" NetAmountPayable
="">
<Date>21</Date>
<Date>22</Date>
<Date>15</Date>
<Date>8</Date>
<Date>1</Date>
</Month>
</Course>
</Semester>
</Teacher>
</IUBFacultyPaymentBills>

```



Chapter No.5

5 USER INTERFACE

5.1 Main Applications Interface



Description:

This is the main page which is provided to integrate the Payment Bill Generator system.

The four links in this snapshot are the part of Payment Bill Generator.

1. Assign Courses
2. Assign Visiting Courses
3. Pay Bill
4. Visitor Pay Bill

These links are the gate way of this control.

Note: user validation is the responsibility of the main application only authenticated user can access these links.

5.2 Course Assignment Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Course Assignment Form
Muhammad Suleman
Lecturer, Computer Science & IT

Year: Semester: ☐ Spring ☐ Fall ☐ Summer

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Description:

Assign Course:

This page use to get the basic information about course to filter course according year, semester wise.

First of all user should select year four year history is available to assign courses.

Then user should provide the information about semester to select more finalized result.

5.3 Course Assignment Detailed Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Course Assignment Form

Muhammad Suleman
Lecturer, Computer Science & IT

Year: Semester: ☒ Spring ☐ Fall ☐ Summer

Selected Courses By You:
No Course is selected for this semester!

Semester: 2

<input type="checkbox"/>	7	CSIT-21201	Data Structures & Algorithms	3(2+1)
<input type="checkbox"/>	8	CSIT-21202	System Programming	3(2+1)
<input type="checkbox"/>	9	CSIT-21203	Data Communication & Networks	3(2+1)
<input type="checkbox"/>	10	CSIT-21204	Distributed Database	3(2+1)
<input type="checkbox"/>	11	CSIT-21205	Computer Graphics	3(2+1)
<input type="checkbox"/>	12	CSIT-21206	Object Oriented Data Modeling	3(3+0)

MCS (Morning):2

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Description:

After selecting semester this page shows the information and data related to that year and semester and allows the user to assign courses to login person.

Here user can view only the courses just like a single class. To change course use the dropdown list which is showing value MCS (Morning):2.

The dropdown list which is showing the value Work Load is used to select whether it is selected as Work Load of Visiting.

5.4 Selected Courses Interface

Course Assignment Form

Muhammad Suleman
Lecturer, Computer Science & IT

Year: Semester: ☐ Spring ☒ Fall ☐ Summer

Selected Courses By You:

Course Code	Course Name	Class	Type	Action
CSIT-21102	Introduction to Programming Using C	MCS (Morning):1	Work Load	
CSIT-21103	Operating System	MCS (Morning):1	Work Load	

Semester: 1

<input type="checkbox"/> 1	CSIT-21101	Digital Logic Design & Computer Architecture	3(2+1)
<input type="checkbox"/> 2	CSIT-21102	Introduction to Programming Using C	3(2+1)
<input type="checkbox"/> 3	CSIT-21103	Operating System	3(2+1)
<input checked="" type="checkbox"/> 4	CSIT-21104	Database Concepts	3(2+1)
<input type="checkbox"/> 5	CSIT-21105	Technical & Business Writing	3(3+0)
<input type="checkbox"/> 6	ISL-20001	Islamiat	0

Description:

Clicking on ok button it means that you have selected this course for yourself.

The selected course is shown on the upper side of the course to assign course first select it and then click on ok button. Red Cross sign shows that you can remove your selection. Click this sign to remove your selection.

5.5 Requisition Form Interface



The Islamia University of Bahawalpur Pakistan

No: _____

Dated: _____

PART-TIME/VISITING FACULTY REQUESTION FORM

Instruction on the Form

1. Only one form will be completed in respect of one teacher in one semester.
2. All courses, whether in the department or outside of the Department proposed for the teacher will be entered in the Form.
3. The Form will be submitted with the signature of the Chairperson/Head of Department through the Dean.
4. The form must be filled and submitted for Vice-Chancellor's Approval within 15 days of the start of the semester.

Part-Time Teaching Request:

Approval is solicited to the following Part-Time/Visiting faculty of teaching the classes as detailed below:

1. **Name of Teacher:** Muhammad Suleman
2. **Designation:** Lecturer
3. **Department:** Computer Science & IT
4. **Semester/Session:** Fall-2015
5. **Status:**

Permanent ☐ Contract ☐ Visiting ☐

6. Work Load of Regular/Contract Teacher:

Sr No	Title of the Course	Course Code	Course Credit Hrs	Approved	Not Approved
I	Regular Course(s)				
1	Introduction to Programming Using C	CSIT-21102	3(2+1)		
2	Operating System	CSIT-21103	3(2+1)		
II	Part Time Course(s)				
1					

III. Additional Part-Time Course(s) requested due to foreign degree/qualification as listed.

Foreign Degree _____

Date of Degree _____

Sr. No	Part-Time Courses(s)	Course Code	Course Credit Hrs	Approved	Not Approved
1					
2					

IV. Visiting Faculty Teaching Request:

Particular of visiting faculty:

Particular of visiting faculty.					
Degree	Specialization Subject			Division	
Sr No	Visiting Faculty Course(s)	Course Code	Course Credit Hrs	Approved	Not Approved
1					

V. Certification & Verification:

It is certified that the teacher concerned is teaching required teaching load as indicated above and only two additional Courses as part time as per University Policy.

Filled By: _____ Dated: _____
Name & SignatureVerified By: _____ Dated: _____
Name & Signature of Chairperson/Head of DepartmentRecommendation By Dean: _____ Dated: _____
Signature of Dean

Approved by the Vice Chancellor

Total Course ☐ Approved ☐ Not Approved ☐

Vice-Chancellor

Description:

This is the requisition form that is generated by this software. This form contains two types of information faculty information and course information. Faculty information is received from main application that is coming from database. Course information is stored in XML file and is of this control.

5.6 Visiting Faculty Course Assignment Interface

The screenshot displays the website of The Islamia University of Bahawalpur, Bahawalnagar Campus. The header features the university's name and logo. Below the header is a navigation menu with links: Home, Department, Download, News, Contacts, Services, and Contact Us. The main content area is titled 'Computer Science & IT Assing Courses to Visitors'. It contains a form with the following fields: 'Teacher Name' (a dropdown menu showing 'Ahmad Ali'), 'Semester' (radio buttons for Spring, Fall, and Summer), 'Year' (a dropdown menu showing '2015'), 'Programs' (a dropdown menu), and 'Courses' (a dropdown menu). Below these fields are two buttons: 'Add Course' and 'Genrate Requisition Form'. Under the 'Add Course' button, there is a section titled 'Selected Courses By You:' followed by a dashed line. Below this is a section titled 'All Courses Selected By Any Teacher In This Department'. At the bottom of the page, there is a footer with a small logo and a line of text: 'Contact Us | Terms of Use | Trademarks | Privacy Statement Copyright © 2009 --- All Rights Reserved.'

Description:

This is the second link of this control that is used to assign course to visiting faculty. This figure shows that there is an option to select visiting faculty that means visiting faculty is dependent on permanent faculty. And other procedure is same like permanent faculty.

5.7 Selecting Visiting Faculty Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT Assing Courses to Visitors

Teacher Name:

Semester: ☒ Spring ☐ Fall ☐ Summer

Year:

Programs:

Courses: 3(2+1)

Selected Courses By You:
No Course is selected for this semester!

All Courses Selected By Any Teacher In This Department
Nothing is Selected for this Program in this Department

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Description:

This figure shows the next step of the visiting course assignment. We can see that semester is selected and program and courses dropdown lists are populated according the semester.

Two horizontal lines shows the selected course upper shows the selected course of the selected teacher in the dropdown list whether other division shows the course selected by any teacher in this department. To assign a course to a teacher follow these steps:

1. Select teacher form teacher name dropdown list
2. Select semester
3. Confirm course is selected you want to assign otherwise select that course
4. Click add course button to assign selected course.
5. After assigning course that is removed from dropdown and is added in the selected list.

5.8 After Selecting Courses Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT Assing Courses to Visitors

Teacher Name:

Semester: ☒ Spring ☐ Fall ☐ Summer

Year:

Programs:

Courses: 3(2+1)

Course Has Successfully Been Assigned!

Selected Courses By You:

Course Code	Course Name	Class	Type	Action
CSIT-21201	Data Structures & Algorithms	MCS (Morning):2	Visiting	

All Courses Selected By Any Teacher In This Department

Course Code	Subject Title	Class	Teacher
CSIT-21201	Data Structures & Algorithms	MCS (Morning):2	Ahmad Ali

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Description:

After selecting course interface change like this.

Green message “Course Has Successfully Been Assigned” shows that one course has been added in the storage file. Generate Requisition Form button is used to generate Requisition Form.

Red Cross button can be used to remove the course form selected course.

5.9 Pay Bill Interface

The screenshot shows the 'Faculty Payment Bills' interface on the website of The Islamia University of Bahawalpur, Bahawalnagar Campus. The header includes the university's name and logo. A navigation bar contains links: Home, Department, Download, News, Contacts, Services, and Contact Us. On the left, a sidebar identifies the user as 'Computer Science & IT' and 'Muhammad Suleman, Lecturer'. The main content area is titled 'Faculty Payment Bills' and contains the following fields and options:

- HBL Bank A/c No:
- Income Tax Rate: %
- Rate Per Lecture: Rs/-
- Basic Info (link)
- Add Lectures Dates (link)
- Year:
- Semester: ☐ Spring ☐ Fall ☐ Summer
- Assigned Courses:
- New Payment Bill (button)

The footer contains links for Contact Us, Terms of Use, Trademarks, and Privacy Statement, along with a copyright notice: Copyright © 2009 — All Rights Reserved.

Description:

This interface is used to get basic information that is required for Pay Bill.

HBL Bank A/c No: it is faculty account no that will be used to transfer pay to the faculty.

Income Tax Rate: this information will help the software to calculate the tax and original pay of the faculty.

Rate per Lecture: this field is used to get the rate that department is offering to the faculty.

5.10 Faculty Payment bill without basic information Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT
Muhammad Suleman, Lecturer

Faculty Payment Bills

HBL Bank A/c No: *Required

Income Tax Rate: % *Required

Rate Per Lecture: Rs./- *Required

Basic Info
Add Lectures Dates

Year: 2015 ▼

Semester: ☐ Spring ☐ Fall ☐ Summer

Assigned Courses:

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Description:

This figure shows that user cannot perform any next functionally without providing this basic information.

5.11 Faculty Payment Bill with basic Information Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT
Muhammad Suleman , Lecturer

Faculty Payment Bills

HBL Bank A/c No:

Income Tax Rate: %

Rate Per Lecture: Rs/-

Year:

Semester: ☐ Spring ☒ Fall ☐ Summer

[Basic Info](#) [Assigned Courses:](#)

Course Code	Course Name	Class	Type	Action
CSIT-21102	Introduction to Programming Using C	MCS (Morning):1	Work Load	
CSIT-21103	Operating System	MCS (Morning):1	Work Load	

[Add Lectures Dates](#)

[New Payment Bill](#)

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Description:

This figure shows the information is completed and Fall radio button is selected.

The courses that are going to be added in the pay bill are shown if user found an unwanted course then he/she can click red cross button.

5.12 Add Attendance Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT
Ahmad Ali (Visitor) Lecturer

Faculty Payment Bills

Add Lectures Attendance

[Basic Info](#)
[Add Lectures Dates](#)

Visual Programming	CSIT-21303	Add Attendance
Digital Logic Design & Computer Architecture	CSIT-21101	Add Attendance

Previous Generate Payment Bill

Generate Copy of Payment Bill

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Description:

This interface is very important for user that helps the user to add attendance for each selected course.

Each course has a link “Add Attendance”.

Click on “Add Attendance” link to go to next step.

If you found any mistake use previous button to go back.

5.13 Add Attendance Calendar Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT
Ahmad Ali (Visitor) Lecturer

Faculty Payment Bills

Add Lectures Attendance

Basic Info
[Add Lectures Dates](#)

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

CSIT-21303
Visual Programming CSIT-21303 [Add Attendance](#)

Digital Logic Design & Computer Architecture CSIT-21101 [Add Attendance](#)

[Previous](#) [Generate Payment Bill](#)

[Generate Copy of Payment Bill](#)

[Contact Us](#) | [Terms of Use](#) | [Trademarks](#) | [Privacy Statement](#)
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Description:

After clicking “Add Attendance” link a calendar is shown.

Saturday and Sunday are off days so these days are disabled.

To add lecture date just select month and click that date.

After adding date to the storage will be disabled.

5.14 Attendance Added Interface

The Islamia University of Bahawalpur
Bahawalnagar Campus

Home Department Download News Contacts Services Contact Us

Computer Science & IT
Ahmad Ali (Visitor) Lecturer

Faculty Payment Bills

Add Lectures Attendance

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

13/1

7/1

6/1

17/12

16/12

3/12

10/12

12/17/2014 has successfully been added in your attendance register!
CSIT-21303

Visual Programming	CSIT-21303	Done
Digital Logic Design & Computer Architecture	CSIT-21101	Add Attendance

Previous Generate Payment Bill

Generate Copy of Payment Bill

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Description:

Right side with red cross sign values shows the date and months that has been added as attendance.

Red color date with message shows that date has successfully been added in the selected course CSIT-21303 is the course code which is currently selected to add attendance.

5.15 Pay Bill Form Interface



The Islamia University of Bahawalpur Pakistan

Bahawalnagar Campus

Department of Computer Science & IT

Visiting Teacher's Bill For Fall Semester 2015

Teacher: Ahmad Ali

Designation: Lecturer

HLB Bank A/c No. 123456789

Program/ Semester	Subject/Course Code	Credit Hour	For the Month of	Dates of Lecture Delivered							Total Lectures Delivered	Rate Per Lectures	Total Amount	Income Tax @7%	Net Amount Payable	ECR P.# (Official Use)
MCS (Morning) Semester No.3	Visual Programming CSIT-21303	3(2+1)	January	13	7	6					3	987	2961	207	2754	
			December	17	16	3	10	9	2		6		5922	414	5508	
			Total= 1								9		8883	621	8262	
MCS (Morning) Semester No.1	Digital Logic Design & Computer Architecture CSIT-21101	3(2+1)	November	26	19	18	11	12	5	4	7	987	6909	483	6426	
			Total= 2								7		6909	483	6426	
			Grand Total (All Courses)								16		15792	1104	14688	

Signature of Claimant _____

Bill verified & forwarded for payment
Certified that the above mentioned teacher delivered
the Lecturers as mentioned against each month and duration of each
lecture is 90 minute

Head of Department

Director Campus

Description:

This is the final output of the System. It is very difficult to fill up this complicated form manually error free without overwriting and cutting.

Before this system form is created manually using MS Word.

This system also perform the calculation of this form automatically.

This is the most complicated interface that is totally dynamic based on XML storage.

User can print this form and just send it.

This form is error free and well managed.

A horizontal banner with a double-pointed arrow shape, outlined in orange. The text "Chapter No.6" is centered within the banner in a large, red, serif font.

Chapter No.6

6 Testing and Deployment

6.1 Assign Course

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on Assign course link	Nothing	Redirect to CourseAssignmentForm page	Ok
Past url without login	Nothing	Redirect to default page	Ok
Result	100%		

6.2 Select Semester

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Change year	Nothing	Only change year	Ok
Select Spring Semester	Nothing	Show spring courses	Ok
Select Fall semester	Nothing	Show Fall courses	Ok
Change year again	Nothing	Hide course and ask for Semester	Ok
Result	100%		

6.3 Select Course to Assign

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Select single check box	Nothing	Tick mark should be on this course	Ok
Ok button click	Course is selected	Assign course and show in assigned list	Ok
Ok button click	No course is selected	Nothing should happen	Ok
Try to select that course again	Nothing	Should be disabled	Ok
Select multiple course	More than one course	Assign all selected courses	Ok
Change program	Nothing	Course should be changed	Ok
Select a course and assign as part time	Single course	Should assign as part time	Ok
Remove a selected course	Course code	Should remove form selected courses list and enabled in courses list	Ok
Try to select removed course again	Nothing	Should be allowed to check it	Ok
Result	100%		

6.4 Generate Requisition Form

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on “Generate Requisition Form” button	Link of xml Storage and login information	Should open another tab with Form	Ok
Past link that generate Requisition Form without login	Nothing	Should show warning message and redirect to default page (main application)	ok
Result	100%		

6.5 Assign Visiting Courses

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on Assign visiting course link	Nothing	Redirect to AssignVisitingCourses page	Ok
Past url without login	Nothing	Redirect to default page	Ok
Result	100%		

6.6 Assign Visiting Course in Storage

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Change teacher name	Nothing	Change name only	Ok
Select any semester	Nothing	Data about that semester should be populated	Ok
Change year	Nothing	Update both lists selected courses	Ok
Change program	Nothing	Courses should be updated	Ok
Select any course and click add course button	Nothing	Couse should be removed form dropdown list and should be shown in selected lists	Ok
Try to remove that course form selected list	Nothing	Should come back in dropdown list	Ok
Result	100%		

6.7 Generate Requisition Form for Visitor

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on “Generate Requisition Form” button	Link of xml Storage and login information	Should open another tab with Form	Ok
Past link that generate Requisition Form without login	Nothing	Should show warning message and redirect to default page (main application)	ok
Result	100%		

6.8 Pay Bill Generation

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on Pay Bill link	Nothing	Redirect to paybill page	Ok
Past url without login	Nothing	Redirect to default page	Ok
Result	100%		

6.9 Add Basic Information

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on “new pay bill” button	Nothing	Error of required field	Ok
Provide only account	Account only	Error of required field	Ok
Provide income tax also	Account and income tax	Error of required field	OK
Provide lecture rate	Account, income and lecture rate	Should move to next step	Ok
Result	100%		

6.10 Add Attendance

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on “add attendance” link	Couse code	A calendar should be shown	Ok
Try to add Sunday or Saturday	Nothing	Should not allow	Ok
Click on 1 on month 1	Nothing	Should be disabled and shown in right side of the calendar	Ok
Click on remove button right side of the calendar to remove attendance	Nothing	Should be removed	Ok
Try to add more dates from different months	Nothing	Should be populated in right side	Ok
Click on done link	Noting	Should hide calendar And change link to add attendance	Double click required
Try to add attendance for other courses also	Nothing	Should accept attendance	Ok
result	95%		

6.11 Generate Pay Bill

Project	Online Payment Bill Generator		
Steps	Data	Expected Result	Actual Result
Click on “generate payment bill” button	Xml link and basic information	Should open new tab and show payment bill	Ok
Try url without login	Nothing	Blank Payment bill with login link should be shown	Ok
Result	100%		

6.12 Deployment

After testing this project is deployed on a testing server. Link of the server is [Payment Bill Generator](http://suleman.somee.com) (<http://suleman.somee.com>). After the user testing if no issue found this will be moved for professional use.

A horizontal banner with a double-lined orange border. The banner has a pointed left end and a pointed right end. Inside the banner, the text "Chapter No.7" is written in a large, red, serif font.

Chapter No.7

7 Conclusion and Future Enhancement

7.1 Conclusion

Payment Bill Generator is a software that is very useful to generate payment bills. It provide easy interface to do this. The main purpose of this software is to do this quickly.

It also allow user to add attendance for courses.

7.2 Future Enhancement

In future these thing are common to make this software more efficient:

AJAX

Friendlier interface

Visiting faculty should also be able to access the software

Back steps can be managed properly

Visiting and permanent faculty can be combined on a single page

Advance print options can be applied

A horizontal banner with a light orange background and a darker orange border. The text "Chapter No.8" is centered within the banner in a large, red, serif font.

Chapter No.8

8 Plagiarism Report

Filename: Online Payment Bill Genrator.docx

Date: 2015-01-15 09:44 UTC

Results of plagiarism analysis from 2015-01-15 09:46 UTC 48 matches from 17 sources, of which 17 are online sources.

Plagiarism level: **15%**

Showing best match per source - click on match to display all matches or on URL to show source. 18 matches from <http://www.iub.edu.pk/department.php?id=33>

In pursuance of policy of the government to provide quality education at door step of the inhabitants of remote areas the Bahawalnagar campus was established in 2005 The campus offers very conducive environment and is equipped with all facilities like two most modern computer labs internet multimedia scanner and library In order to establish a permanent campus 50 acre land has been transferred by Government of the Punjab to the university campus The campus has been housed in a borrowed building of Comprehensive High School which has been refurnished and renovated properly The campus has its two buses and a coaster to provide transportation facility to the students staff and faculty Moreover a hostel for faculty members has been established to provide comfortable accommodation to the outstation teachers regulations being practiced at Bahawalpur campus will also be applicable in the respective Departments at Bahawalnagar Campus ... Now nine departments are functional with 13 different programs in morning and evening 409 million for the development and construction of the campus building at Bahawalnagar Recently the facilities of digital library and video conference have been provided One for boys and two for girls having capacity of 175 students It was decided to launch demand driven and market based programs The program structure eligibility admission criteria fee structure and other rules Accordingly the Departments of Management Sciences and Computer Sciences The construction work of the project has been started ... IT were established in the first phase The campus has three hostels for students The CDWP has already approved Rs

5 matches from

http://iub.edu.pk/Documents/Admission2008/Prospectus2008/Sub_Campuses.pdf

... being practiced at Bahawalpur campus will also be applicable in the respective Departments at ... very conducive environment and is equipped ... all facilities like two most modern computer labs ... It was decided to launch demand driven and market based programs ... campus has been housed in ... Comprehensive High School ... has been refurnished and renovated properly The program structure eligibility and other rules ...

4 matches from <http://perflensburg.se/Privatsida/cp-web/hsijusec.htm>

Each use case constitutes a complete course of events initiated by an actor and ... specifies the interaction that takes place between an actor and the system A use case is thus a special sequence of related transactions performed by an actor and the system in a dialogue ... A use case is a specific way of using the system by ... some part of ... use cases specify all the ... ways of using the system ...

4 matches from <http://slideplayer.de/slide/676157/>

Each use case constitutes a complete course of events initiated by an actor and it specifies the interaction that takes place between an actor and the system A use case is thus a special sequence of related transactions performed by an actor and the system in a dialogue The collected use cases specify all the existing ways of using the system ...

... A use case is ... of using the system ...

3 matches from [http://cse.spsu.edu/sduggins/classes/Spring 2013/SWE4743/Documents/USECaseExshortversion.ppt](http://cse.spsu.edu/sduggins/classes/Spring%202013/SWE4743/Documents/USECaseExshortversion.ppt)

A use case is ... sequence of related transactions performed by an actor and the ... Use Cases A use case is a ... Each use case ... by an actor and ... an actor and the

2 matches from <http://www.cyclopaedia.info/wiki/Bahawalnagar>

In pursuance of policy of the government to provide quality education at door ... the inhabitants of remote areas the Bahawalnagar campus was established ... The Islamia University of Bahawalpur Bahawalnagar Campus ...

2 matches from
http://www.researchgate.net/institution/The_Islamia_University_of_Bahawalpur/members

... The Islamia University of Bahawalpur Bahawalnagar Campus ... Department of Computer Science ... Islamia University of Bahawalpur ...

1 matches from
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<http://www.studysols.com/nfc-faisalabad-admission-2013-in-bsc-programs/>

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