# CHAPTER NO. (I)

1. **Abstract**

The Adaptive Learning Systems (ALS) best depicts the role that technology can play in correcting problems that are faced in today’s educational means. Experience proves that the best way to avoid a mismatch between supply and demand is to deploy technology in response to clearly articulated needs .This project is designed to facilitate the development of technology that will adapt knowledge to the needs of learners. [9]

The four aspects that would be addressed are [content management](http://www.wisegeek.com/what-is-content-management.htm), access to study material, system security and tracking student activity boards. [10] The software tracks students’ work, tailoring feedback and hints along the way. By collecting information on a particular student's performance, the software can make inferences about strengths and weaknesses, and can suggest additional work. [11]

The motivation of this project is to allow electronic education to incorporate the value of the interactivity afforded to a student by a machine that imitates the behaviour of an actual human tutor. The technology encompasses aspects derived from various fields of study including computer science, education, and psychology. Thus the adaptive educational hypermedia focuses on providing a unique user experience in real time.[6]

**CHAPTER NO. (II)**

1. **Project Overview**

The Adaptive Learning Systemis being developed to provide the student with the most suitable, individually planned sequence of knowledge units to learn and sequence of learning tasks (examples, questions, problems, etc.) to work with. In other words, it helps the student to find an "optimal path" through the learning material. [8]It will integrate the theories and technologies such as artificial intelligence, network communication, item response theory and adaptive test all together. The system will be a real distance adaptive hypermedia learning system, which can organize and present the proper content most suitable for the student’s current level of knowledge and ability according to the individual characteristics. [1]

The systemdeals with students' final answers to educational problems (which can range from a simple question to a complex programming problem) no matter how these answers were obtained. Unlike non-intelligent checkers which can tell no more than whether the solution is correct, the system can tell exactly what is wrong or incomplete and which missing or incorrect piece of knowledge may be responsible for the error. [6]The system can provide the student with extensive error feedback and update the student. The most sophisticated adaptation techniques.

(Intelligent analysis of student solutions, interactive problem solving support, and example-based problem solving) require more advanced AI-techniques that typically are used in Adaptive Learning Systems (e.g., rule-based or case-based reasoning). [10]



Fig:2.0 Flow Chart for Adaptive Learning System

**CHAPTER NO. (III)**

1. **Introduction and Motivation**

The traditional classroom means of learning has been implemented since ages around the world using the “one size fits all” approach.

However there are many shortcomings that the traditional means of education face like:

* The need to being tied to fixed class timings.
* The need to travel to distant places.
* The need to finish the portion in a fixed amount of time.
* The disability to deal with different students in a different manner.

Whilst electronic learning and web-based education provide more expedient virtual access to the learners around the world, there are various shortcomings that these posses too like:

* The need of a tutor to be present at the other end.
* As virtual classrooms are again an extension of the actual classroom the tutor cannot give his complete attention to one particular student.
* The need to being tied to fixed class timings.
* The tutor is possible to interact with only a limited number of students at the same time.

The main problem with pre recorded videos is that the student cannot have an interactive session with the tutor.

To overcome all these problems we have come up with “Adaptive Learning System”.

The Adaptive Learning System aims at developing a computer-based learning method to provide an adaptive learning experience for students around the world by the following ways:

* Replacing the traditional teaching methods.
* Eliminating the need to travel to distant places to study.
* Allowing students to learn when convenient wherein one is not tied to class meeting times.
* Spreading training over extended periods of time.
* Helping students learn the unknown and skip what they know.
* Providing various levels of test so that the student can keep a track of his/her individual level of improvement.

**CHAPTER NO. (IV)**

1. **Problem Statement**

The Adaptive Learning System is used to create a student centric system in which the system adapts to the needs of the users. The user can either access data in the plain textual format by just typing the word to be searched or else can learn textual data using activities. These activities help to check whether the student is clear about the concept. The student can also appear for various levels of test and evaluate the subject in which the student is weak in and take necessary tutorials for the same.

**CHAPTER NO. (V)**

1. **Requirement Analysis**

**Hardware requirements:**

* A network requirement is essential for the project. The network must operate at a minimum of at least 100 Mbps (standard Ethernet).
* The basic LAN network must be established and proper administrative modes must be set to access the network.
* The .NET environment requires a minimum of 256 MB RAM (512 or higher ideal) and must have Windows XP or higher versions for an optimum performance.

**Software requirements:**

* Adobe Flash
* Adobe Cold Fusion 8.0
* Microsoft SQL Server

**ECONOMIC FEASIBILITY**

The approximate cost in building the Adaptive Learning System would be as follows:

|  |  |  |
| --- | --- | --- |
| **PART** | **RECOMMENDED** | **COST** |
| PROCESSOR | Pentium 4 | Rs. 21,000 |
| RAM | DDR2 | Rs. 1000 |
| ADOBEFLASH BUILDER | Builder 4 | Rs. 1000 |

**CHAPTER NO. (VI)**

1. **Project Design**
   1. **Functional Requirements (DFD)**

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Fig:6.1(a) DFD Level 0



Fig:6.1(b) DFD Level 1

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Fig:6.1 (c) DFD Level 2

****

Fig:6.1 (d) DFD Level 2

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Fig:6.1 (e) DFD Level 3

****

Fig:6.1 (f) DFD Level 3

* 1. **Procedural Design**

|  |  |
| --- | --- |
| Name | Log In |
| Input | User name, Password |
| Processing | The system checks whether it is a valid user or not by comparing the username and the password that has been entered with the one already stored in the database. |
| Output | The system does or does not validate the user if the username or password does not match.  If the user is valid, he/she gets access to the system |

|  |  |
| --- | --- |
| Name | Registration Process |
| Input | Name, DOB, Age, Sex, Email ID, Password, Retype Password |
| Processing | Registration of the new user is done if all the details are entered correctly |
| Output | New user gets registered and the user gets a User Id and password |

|  |  |
| --- | --- |
| Name | Search data |
| Input | Provides topic for search |
| Processing | The system searches the relevant data in the database |
| Output | The user is provided the necessary data |

|  |  |
| --- | --- |
| Name | Evaluation of test |
| Input | Answer submitted by the student and time taken to complete the test |
| Processing | The system evaluates the answers and checks for the topic in which the student is weak in and computes the result based on the time taken by the student |
| Output | The user is provided with the result along with the subject in which he is weak in |

|  |  |
| --- | --- |
| Name | Evaluation of activities |
| Input | Answer submitted by the student and time taken to complete each problem |
| Processing | The system evaluates the answers and checks for the students behaviour along with the time taken to solve the problem |
| Output | The user is provided with the right answer and evaluation of his/her behaviour |

* 1. **Data Dictionary**

Activity Problem

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Length** | **Allow Null** |  | **Description** |
| aid | Int |  | Unchecked |  | Foreign key |
| qid | int |  | Unchecked |  | Gives unique identity to the table |
| quest | nvarchar | 500 | Unchecked |  | This contains the question |
| opta | nvarchar | 50 | Unchecked |  | It is the Option A |
| optb | nvarchar | 50 | Unchecked |  | It is the Option B |
| optc | nvarchar | 50 | Unchecked |  | It is the Option C |
| optd | nvarchar | 50 | Unchecked |  | It is the Option D |
| CorrAns | nvarchar | 50 | Unchecked |  | This is the Correct Answer. |
| Exp | nvarchar | 50 | Unchecked |  | This attribute gives the explanation to the answer |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Length** | **Allow Null** |  | **Description** |
| tid | Int |  | Unchecked |  | Foreign key |
| qid | int |  | Unchecked |  | Gives unique identity to the table |
| quest | nvarchar | 500 | Unchecked |  | This contains the question |
| opta | nvarchar | 50 | Unchecked |  | It is the Option A |
| optb | nvarchar | 50 | Unchecked |  | It is the Option B |
| optc | nvarchar | 50 | Unchecked |  | It is the Option C |
| optd | nvarchar | 50 | Unchecked |  | It is the Option D |
| CorrAns | nvarchar | 50 | Unchecked |  | This is the Correct Answer. |
| Exp | nvarchar | 50 | Unchecked |  | This attribute gives the explanation to the answer |
| Topic | nvarchar | 50 | Unchecked |  | This attribute gives under which category the question falls into. |

Test Question

Administrator

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coulumn Name** | **DataType** | **Length** | **Allow Null** | **Description** |
| AdminID | int |  | Unchecked | Gives a unique identity to the Administrator |
| UName | varchar | 50 | Unchecked | This is the username of the administrator |
| Pwd | varchar | 50 | Unchecked | This is the password to login to the ALS |

User

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coulumn Name** | **DataType** | **Length** | **Allow Null** | **Description** |
| UserId | int |  | Unchecked | Gives a unique identity to the User |
| Name | varchar | 50 | Unchecked | This is the username of the User |
| DOB | nvarchar | 50 | Unchecked | This is the password to login to the ALS |
| Age | int |  | Unchecked | Age of the user |
| Sex | varchar | 50 | Unchecked | Sex of the user |
| EmailId | nvarchar | 50 | Unchecked | Email Id of the user |
| Password | nvarchar | 50 | Unchecked | Password the user uses to log in |

* 1. **Entity Relationship Diagram**



Fig:10.1 ER Diagram

* 1. **Relational Table**

Activity Problem

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Length** | **Allow Null** |  |
| aid | Int |  | Unchecked |  |
| qid | int |  | Unchecked |  |
| quest | nvarchar | 500 | Unchecked |  |
| opta | nvarchar | 50 | Unchecked |  |
| optb | nvarchar | 50 | Unchecked |  |
| optc | nvarchar | 50 | Unchecked |  |
| optd | nvarchar | 50 | Unchecked |  |
| CorrAns | nvarchar | 50 | Unchecked |  |
| Exp | nvarchar | 50 | Unchecked |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Length** | **Allow Null** |  |
| tid | Int |  | Unchecked |  |
| qid | int |  | Unchecked |  |
| quest | nvarchar | 500 | Unchecked |  |
| opta | nvarchar | 50 | Unchecked |  |
| optb | nvarchar | 50 | Unchecked |  |
| optc | nvarchar | 50 | Unchecked |  |
| optd | nvarchar | 50 | Unchecked |  |
| CorrAns | nvarchar | 50 | Unchecked |  |
| Exp | nvarchar | 50 | Unchecked |  |
| Topic | nvarchar | 50 | Unchecked |  |

Test Question

Administrator

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **DataType** | **Length** | **Allow Null** |
| AdminID | int |  | Unchecked |
| UName | varchar | 50 | Unchecked |
| Pwd | varchar | 50 | Unchecked |

User

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coulumn Name** | **DataType** | **Length** | **Allow Null** | **Description** |
| UserId | int |  | Unchecked | Gives a unique identity to the User |
| Name | varchar | 50 | Unchecked | This is the username of the User |
| DOB | nvarchar | 50 | Unchecked | This is the password to login to the ALS |
| Age | int |  | Unchecked | Age of the user |
| Sex | varchar | 50 | Unchecked | Sex of the user |
| EmailId | nvarchar | 50 | Unchecked | Email Id of the user |
| Password | nvarchar | 50 | Unchecked | Password the user uses to log in |

Evaluation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coulumn Name** | **DataType** | **Length** | **Allow Null** | **Description** |
| UserId | int |  | Unchecked | Gives a unique identity to the user |
| Uname | varchar | 50 | Unchecked | This is the username of the user |
| Level | int |  | Unchecked | This is the difficulty level of the test |
| Ans1  .  .  .  Ans30 | nvarchar | 50 | Unchecked | The answers the user submits to the system |
| TotalScore | int |  | Unchecked | The amount of questions answered right by the user |
| Report | nvarchar | 50 | Unchecked | The evaluation result submitted by the system to the user |

* 1. **UML Diagrams**
     1. **Use Case**

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Fig:6.6.1.(a) Use Case of Admin

* Administrator:

The administrator is the one who maintains the database by updating, adding or deleting the data. The administrator has a user Id and password to log in.

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Fig:6.6.1.(b) Use Case of System

* System:

The system validates the user using the user ID and password. The system also provides various test and activities and based on it the system evaluates the user’s behavior and performance and provides the necessary study material.

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Fig:6.6.1.(c) Use Case of Student

* Student:

The student can either be a registered student or a non registered student. Non registered students can only access textual data whereas a registered student can access textual data as well as learn something new through activities. A registered student can also appear for various test and learn from the mistakes.

* + 1. **Activity diagram**

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Fig:6.6.2(a) Activity Diagram of Administrator

**Non Registered User**

****

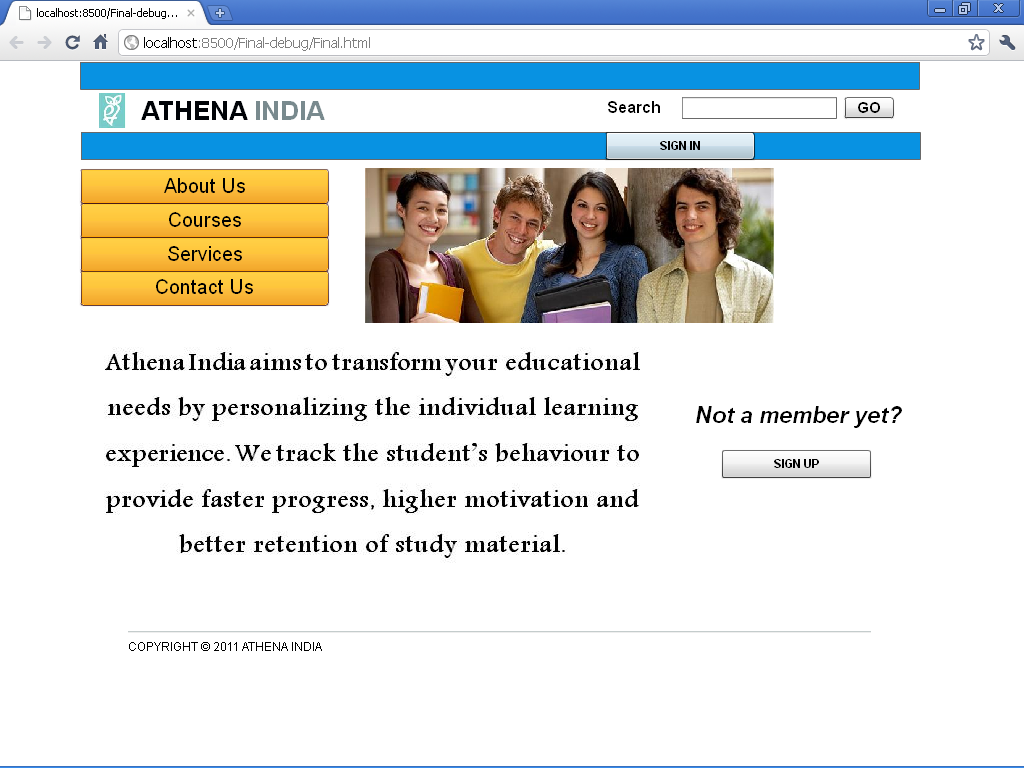
Fig:6.6.2(b) Activity Diagram of Non registered User

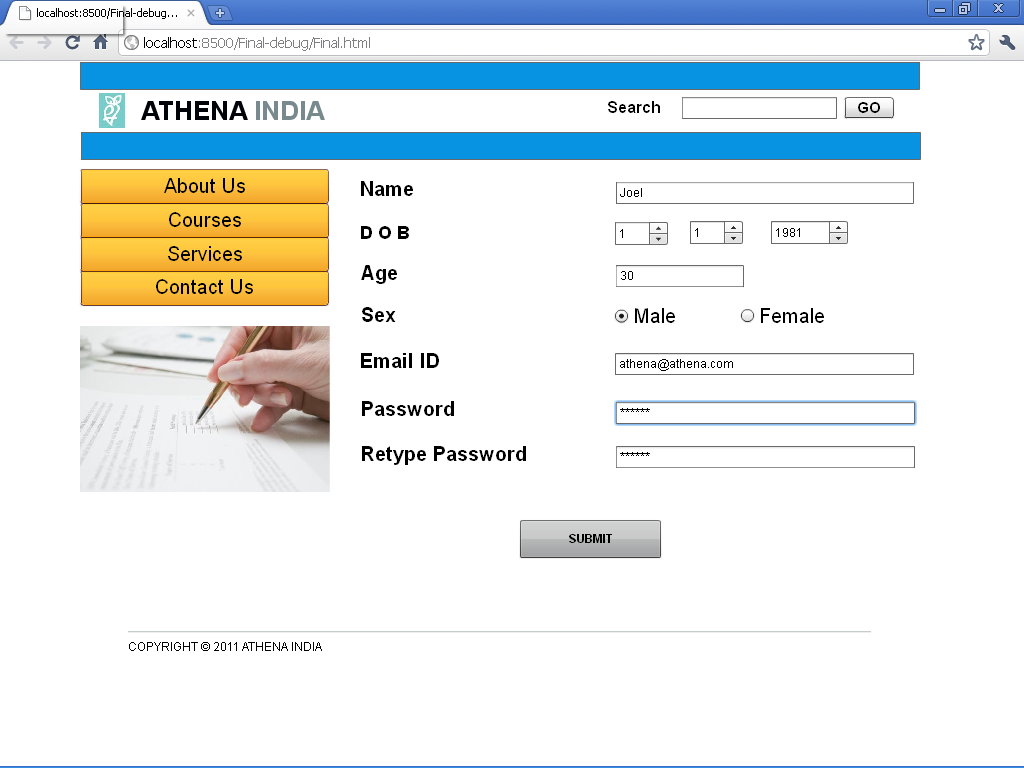
****

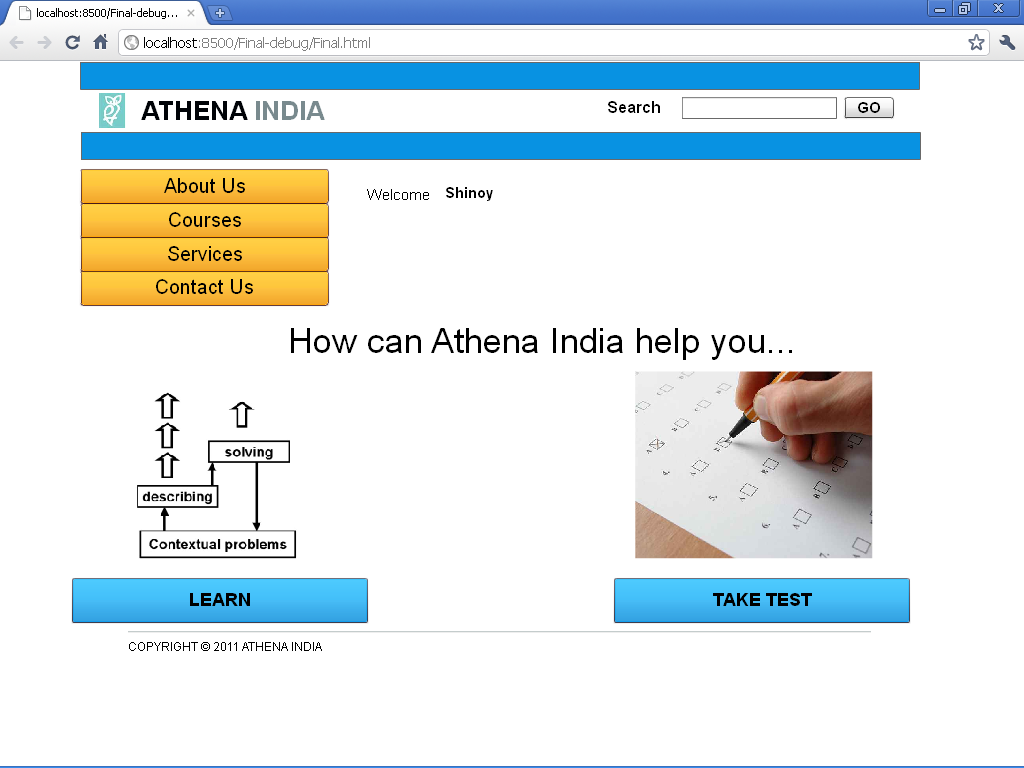
Fig:6.6.2(c) Activity Diagram of Registered User

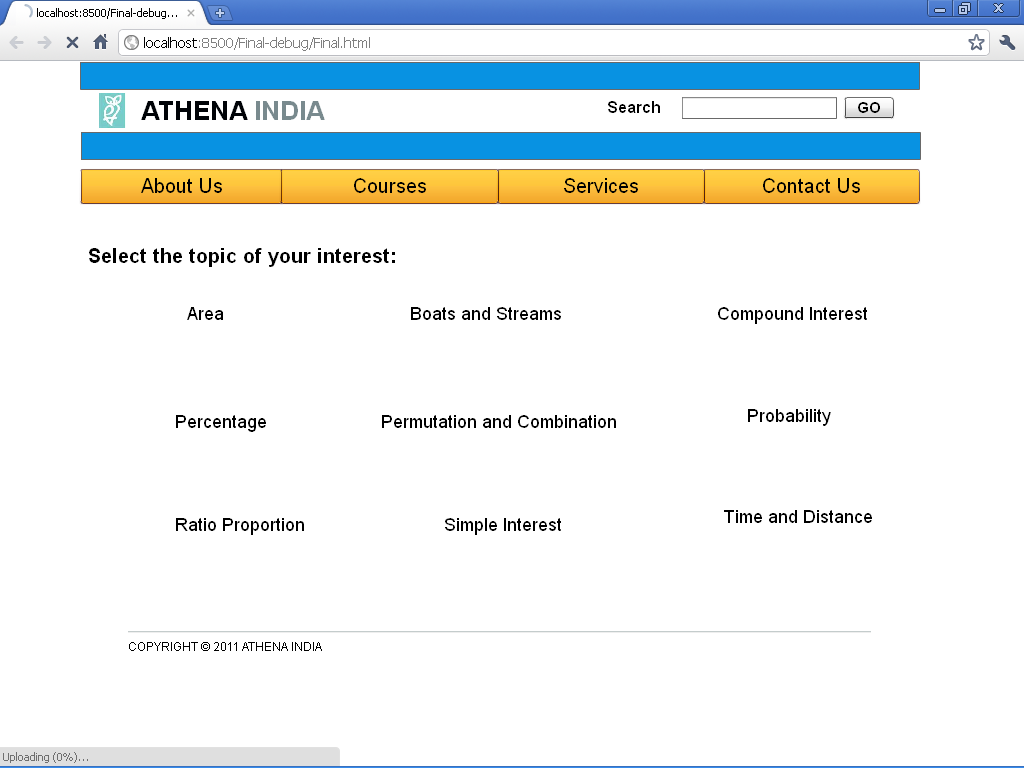
**CHAPTER NO. (VII)**

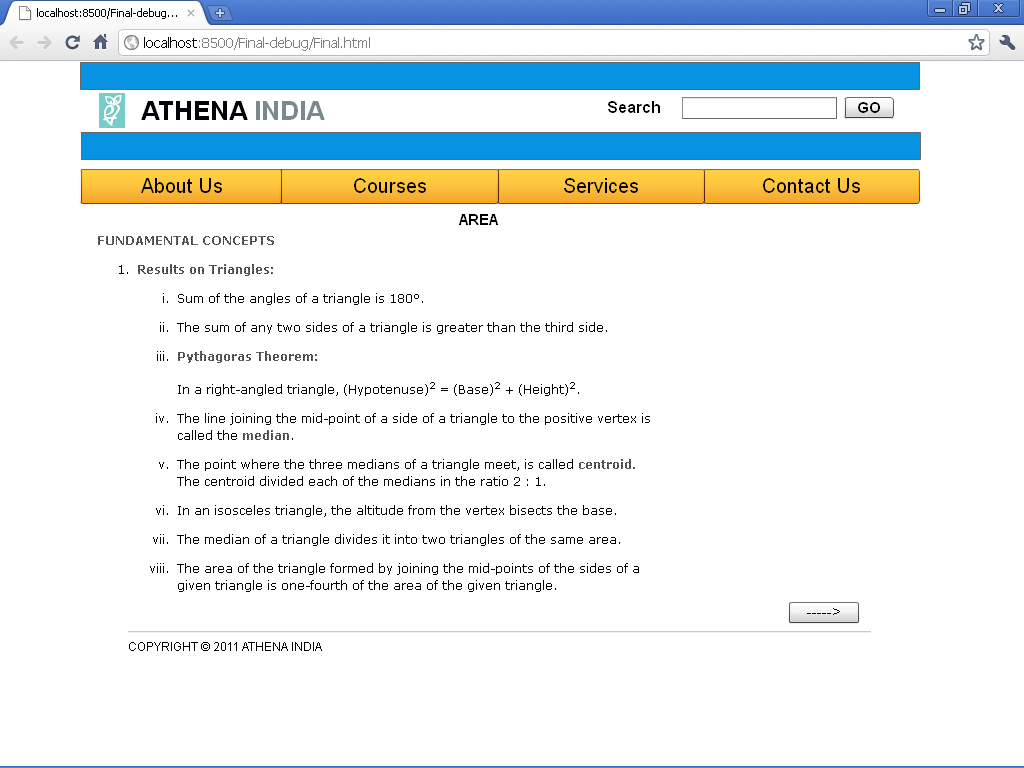
1. **Implementation Details**
   1. **Interface Design**

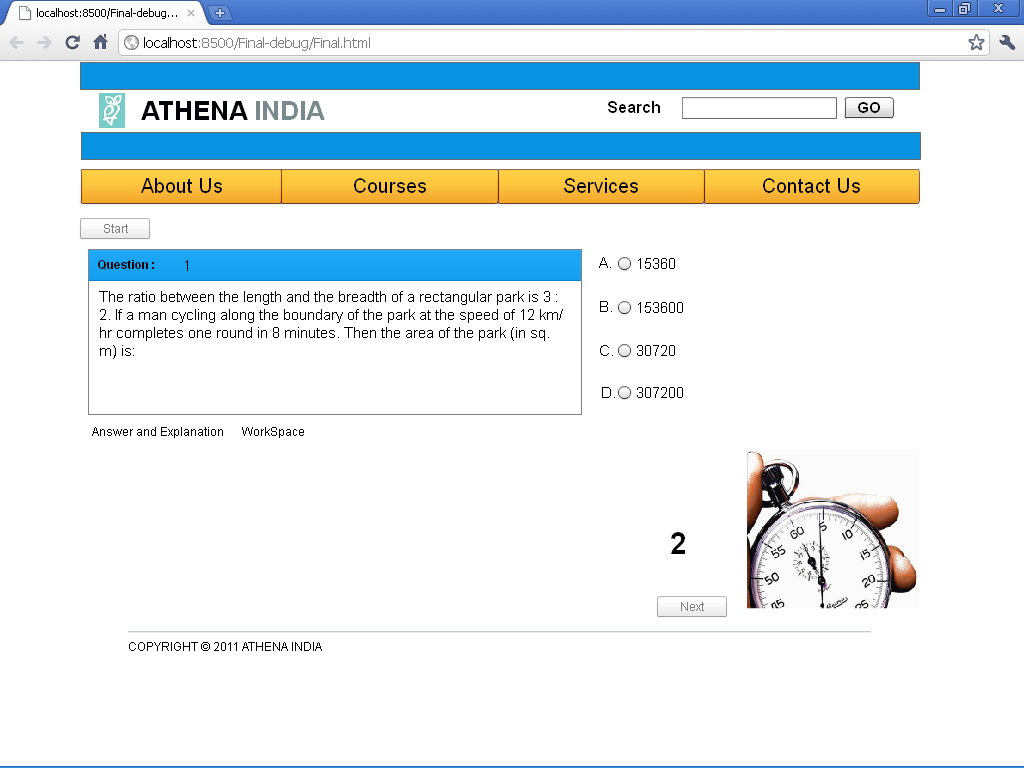
****

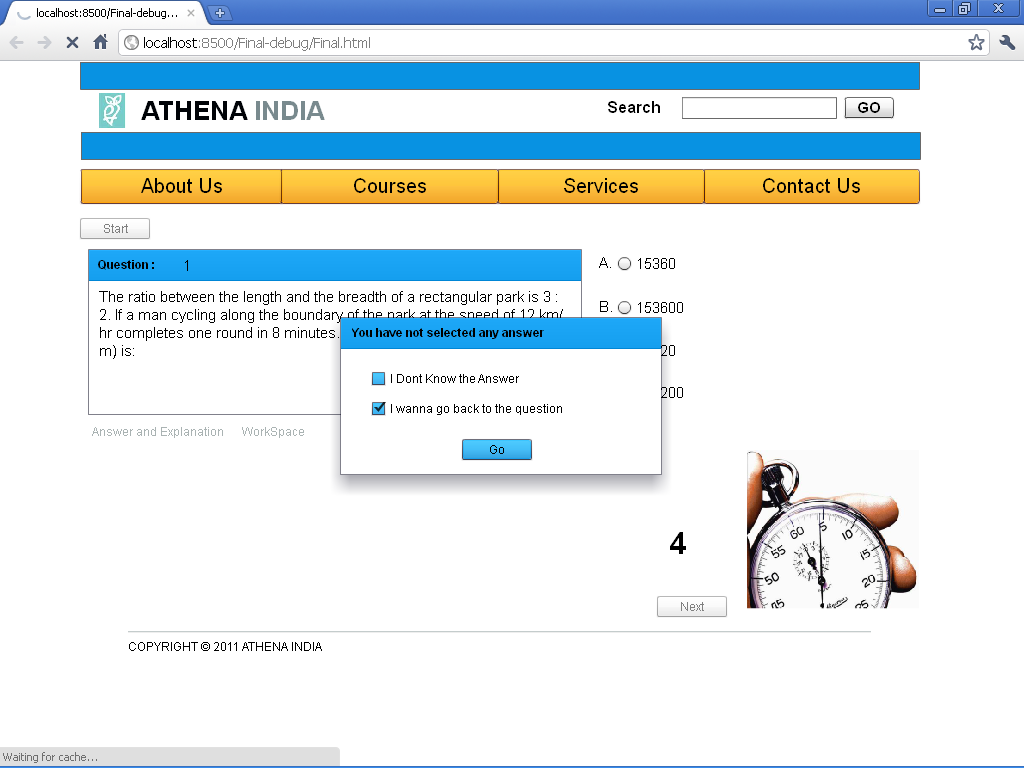


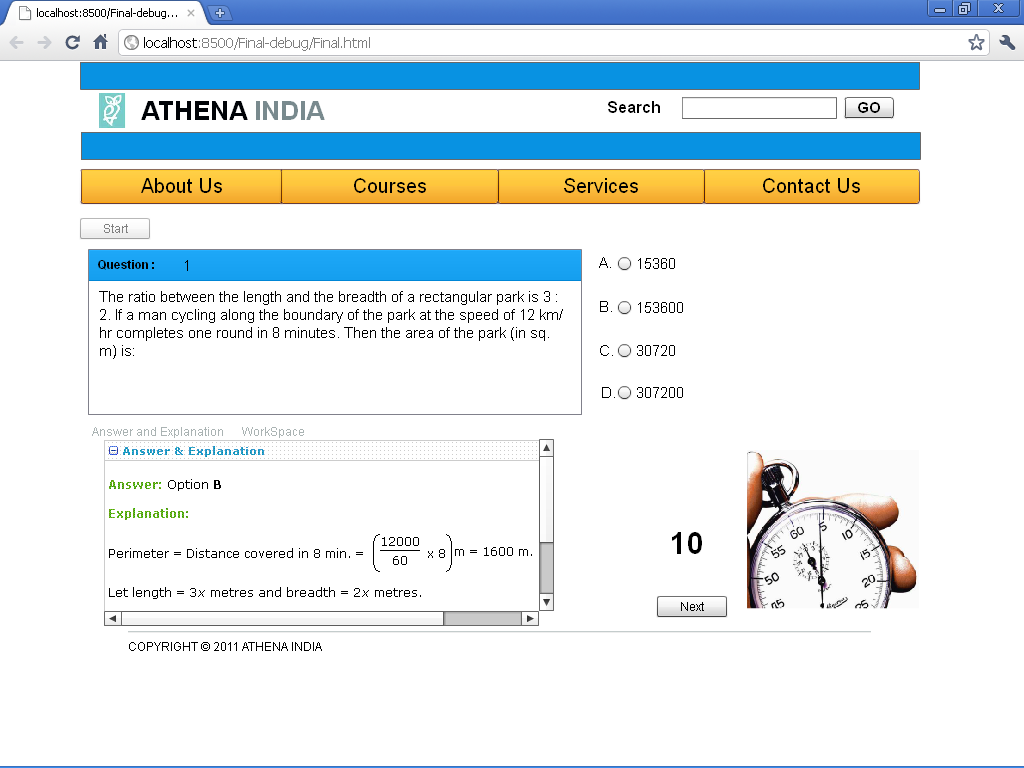


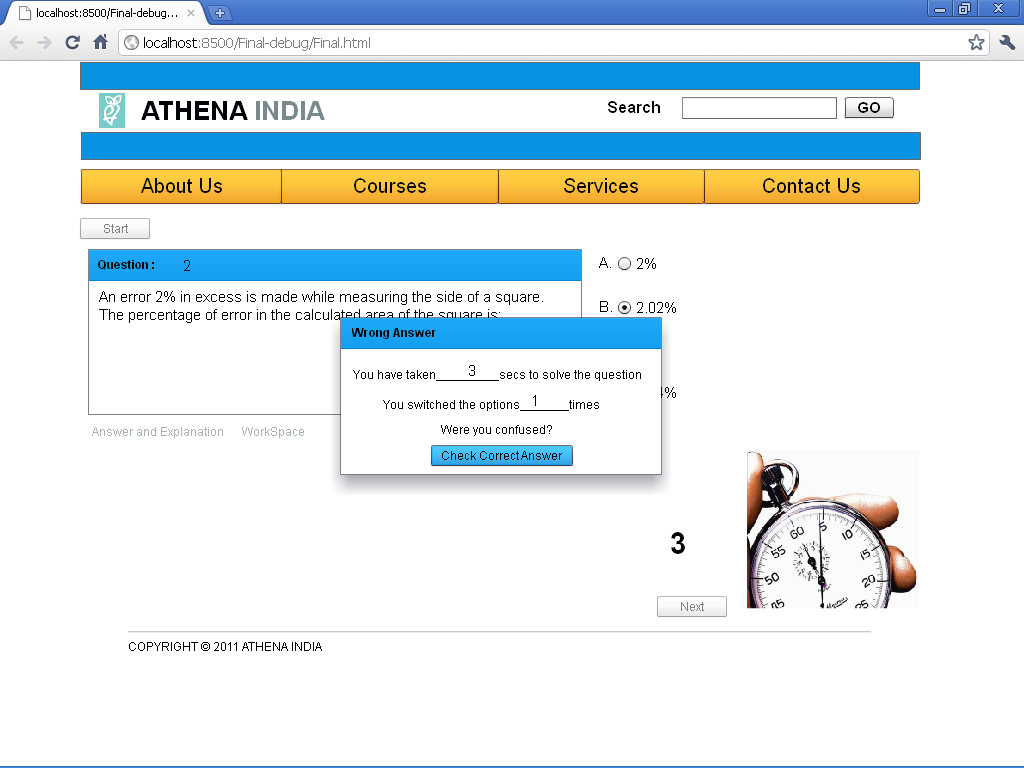


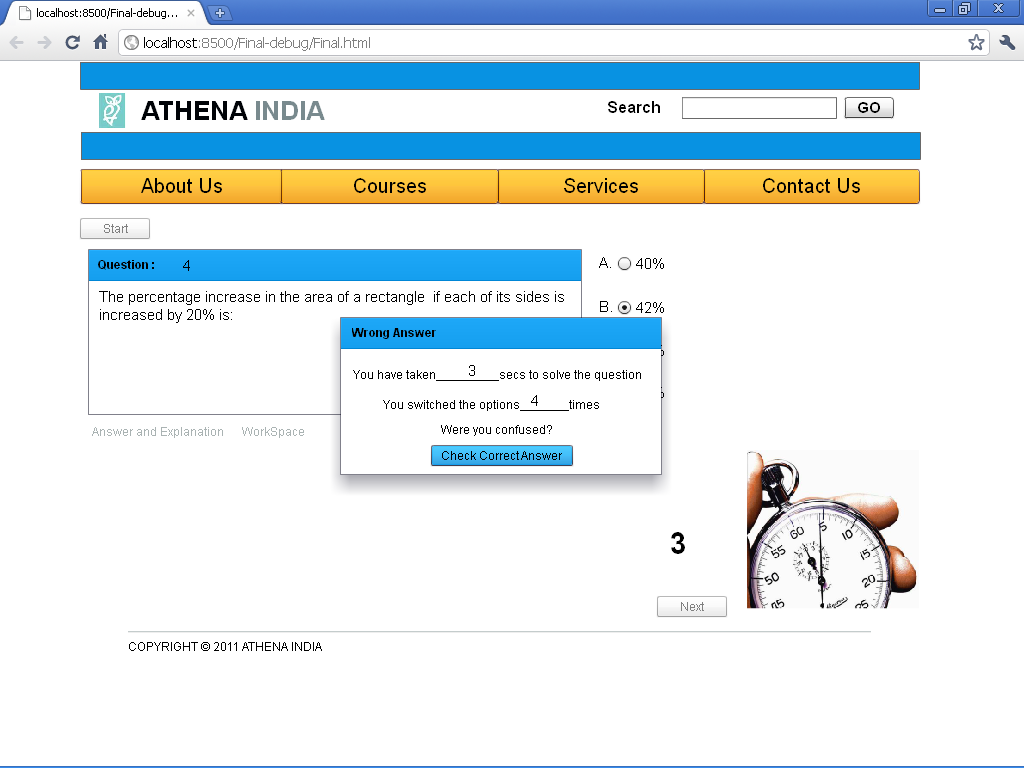


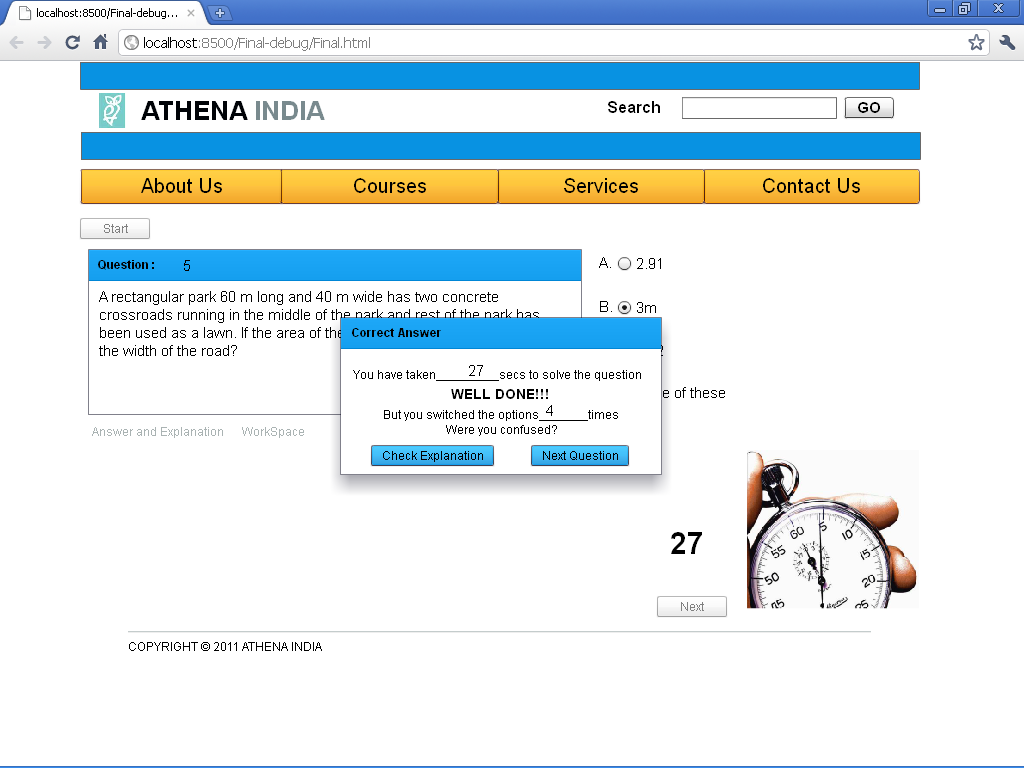


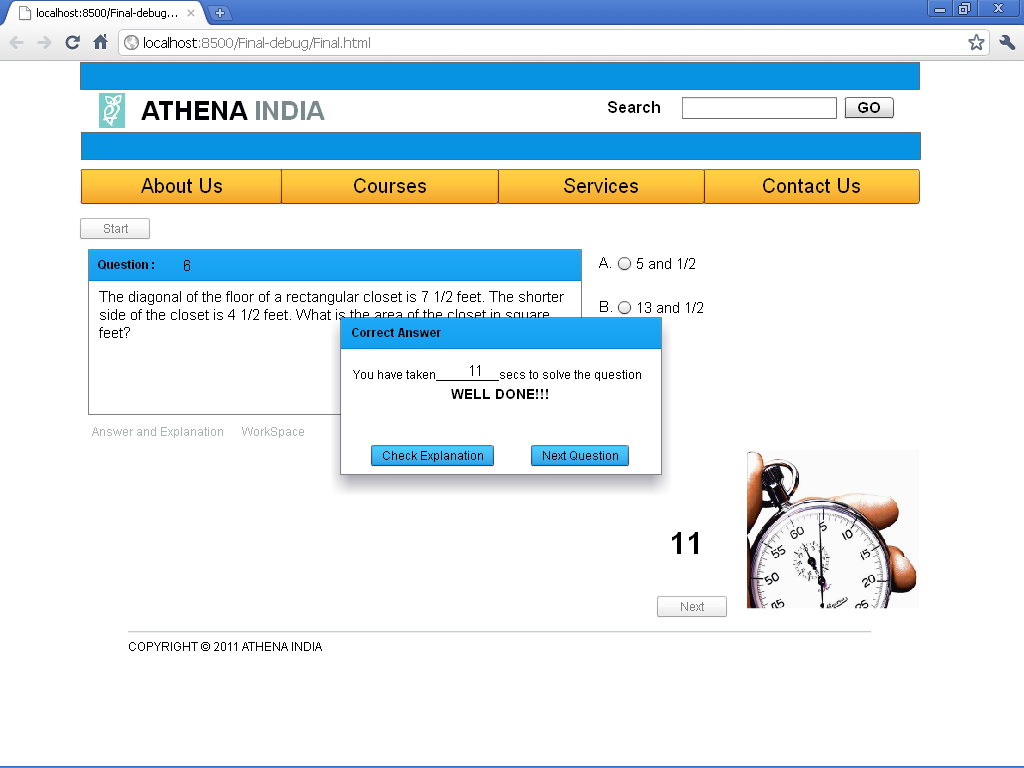


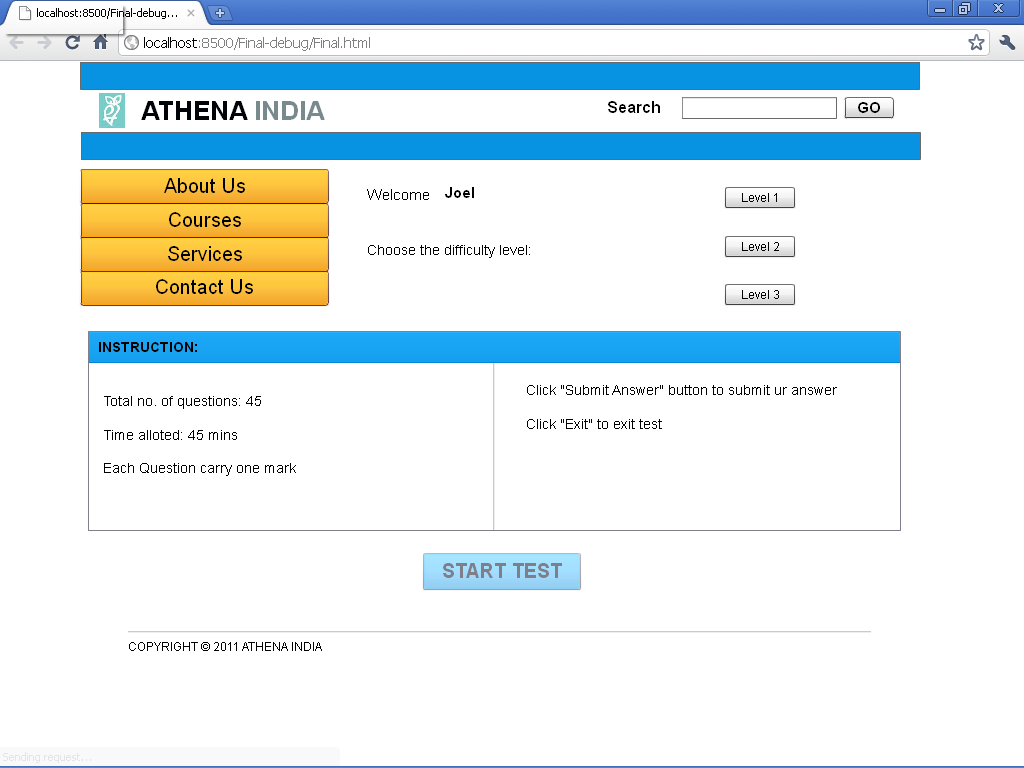


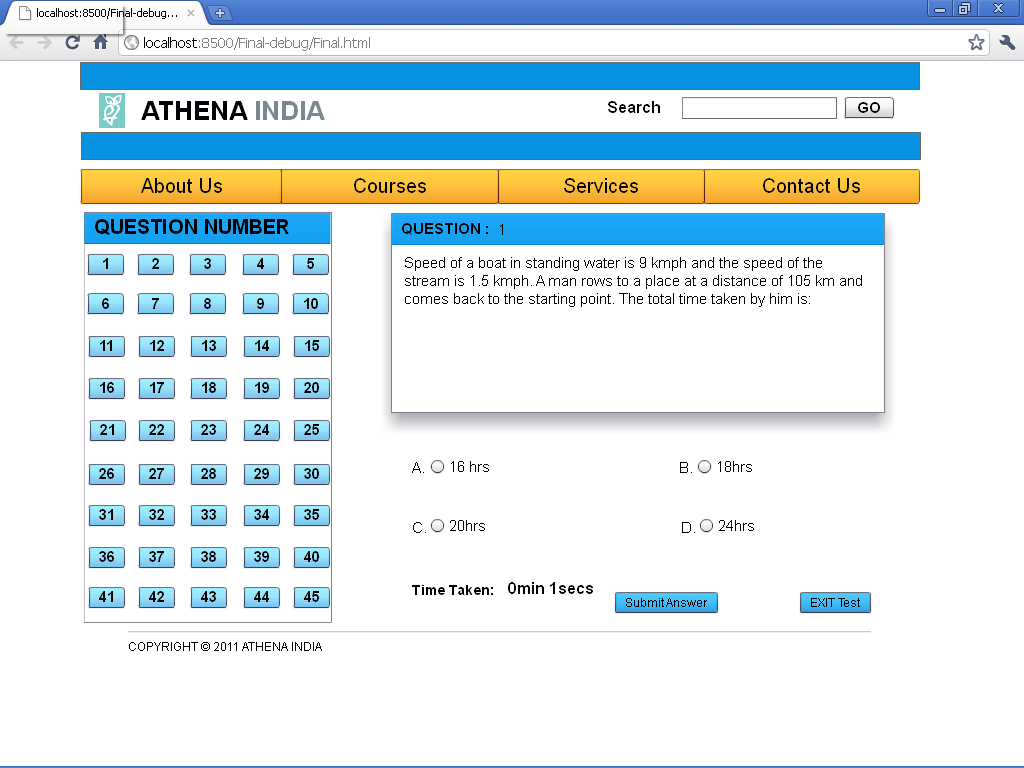




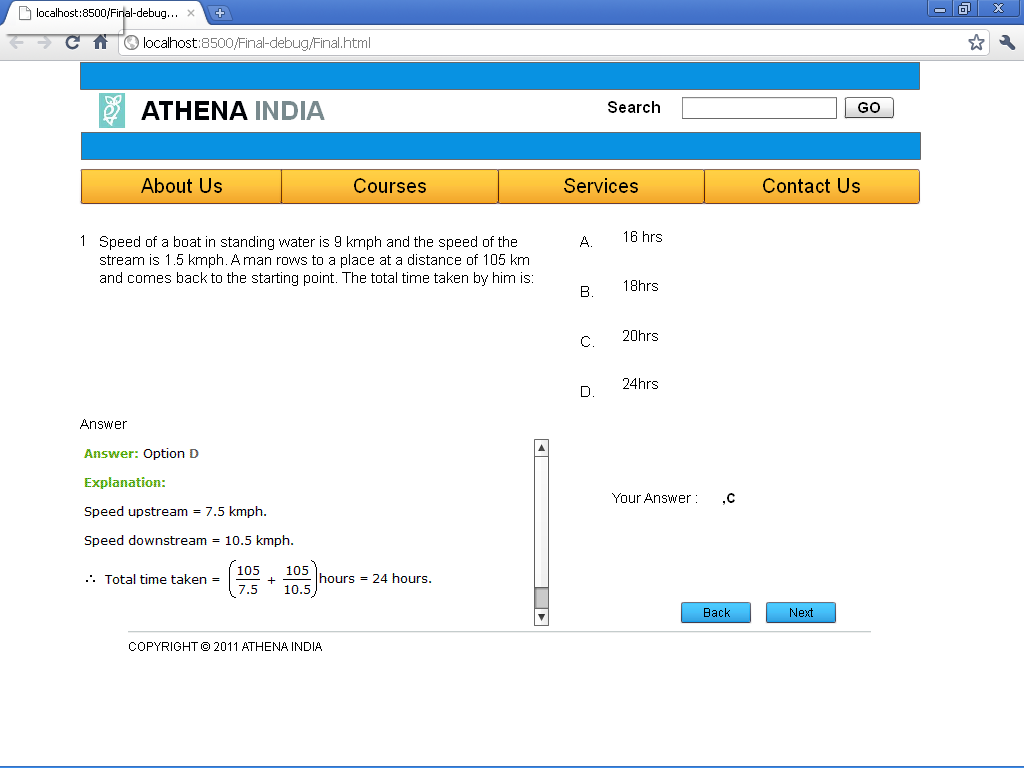












* 1. **Sample Code**

**CFC Code:**

ColdFusion Query for Login and Registration form (**RegistrationService.cfc**)

<cfcomponent name="RegistrationService" output="false" hint="A CFC for connecting with registration service">

<cffunction name="CheckLogin" access="remote" returntype="String">

<cfargument name="eid" type="string" default="NoArg">

<cfargument name="pwd" type="string" default="NoArg">

<cfquery name="SelectLogin" datasource="Final">

SELECT ID,Email,Password from details WHERE Email='#eid#' AND Password='#pwd#'

</cfquery>

<cfset a="Your Email ID and Password does not match">

<cfoutput query="SelectLogin">

<cfif SelectLogin.recordcount eq 1>

<cfset a=#ID#>

</cfif>

</cfoutput>

<cfreturn a/>

</cffunction>

<cffunction name="UserName" access="remote" returntype="Array">

<cfargument name="eid" type="string" default="NoArg">

<cfargument name="pwd" type="string" default="NoArg">

<cfquery name="UserName" datasource="Final">

SELECT ID,Name from details WHERE Email='#eid#' AND Password='#pwd#'

</cfquery>

<cfset a=Arraynew(1)>

<cfoutput query="UserName">

<cfif UserName.recordcount eq 1>

<cfset a[1]="#UserName.ID#">

<cfset a[2]="#UserName.Name#">

</cfif>

</cfoutput>

<cfreturn #a#/>

</cffunction>

<cffunction name="InsertFunction" access="remote" returntype="String">

<cfargument name="Name" type="string" default="NoArg">

<cfargument name="day" type="string" default="NoArg">

<cfargument name="Age" type="string" default="NoArg">

<cfargument name="Sex" type="string" default="NoArg">

<cfargument name="email" type="string" default="NoArg">

<cfargument name="password" type="string" default="NoArg">

<cfquery name="InsertRegQuery" datasource="Final">

INSERT INTO details(Name,Date,Age,Sex,Email,Password)

VALUES('#Name#','#day#','#Age#','#Sex#','#email#','#password#')

</cfquery>

<cfreturn "Process Completed"/>

</cffunction>

</cfcomponent>

ColdFusion Query for displaying query (**Display.cfc**)

<cfcomponent name="Question" output="false" hint="to display question">

<cffunction name="question" access="remote" returntype="array">

<cfargument name="no" type="string" default="NoArg">

<cfargument name="topic" type="string" default="NoArg">

<cfset a=Arraynew(1)>

<cfquery name="question" datasource="Final">

SELECT qid,quest,opta,optb,optc,optd,CorrAns,Exp from #topic# WHERE qid=#no#

</cfquery>

<cfoutput query="question">

<cfset a[1]="#question.quest#">

<cfset a[2]="#question.opta#">

<cfset a[3]="#question.optb#">

<cfset a[4]="#question.optc#">

<cfset a[5]="#question.optd#">

<cfset a[6]="#question.Exp#">

<cfset a[7]="#question.CorrAns#">

</cfoutput>

<cfreturn #a#/>

</cffunction>

<cffunction name="Testquestion" access="remote" returntype="array">

<cfargument name="userid" type="string" default="NoArg">

<cfargument name="test\_level" type="string" default="NoArg">

<cfset a=Arraynew(1)>

<cfquery name="Testquestion" datasource="Final">

SELECT qid,quest,opta,optb,optc,optd,CorrAns,Exp,Topic from #test\_level# WHERE qid=#userid#

</cfquery>

<cfoutput query="Testquestion">

<cfset a[1]="#Testquestion.qid#">

<cfset a[2]="#Testquestion.quest#">

<cfset a[3]="#Testquestion.opta#">

<cfset a[4]="#Testquestion.optb#">

<cfset a[5]="#Testquestion.optc#">

<cfset a[6]="#Testquestion.optd#">

<cfset a[7]="#Testquestion.CorrAns#">

<cfset a[8]="#Testquestion.Exp#">

<cfset a[9]="#Testquestion.Topic#">

</cfoutput>

<cfreturn #a#/>

</cffunction>

</cfcomponent>

**User interface: (Adobe Flash Builder 4)**

<?xml version="1.0" encoding="utf-8"?>

<s:Application xmlns:fx="http://ns.adobe.com/mxml/2009"

xmlns:s="library://ns.adobe.com/flex/spark"

xmlns:mx="library://ns.adobe.com/flex/mx"

minWidth="955" minHeight="600" currentState="Home">

<fx:Script>

<![CDATA[

**import** mx.collections.ArrayCollection;

**import** mx.controls.Alert;

**import** mx.events.FlexEvent;

**import** mx.events.ItemClickEvent;

**import** mx.rpc.events.ResultEvent;

**public** **var** date:String = **new** String();

**public** **var** res:String = **new** String();

**public** **var** r:String = **new** String();

**public** **var** resa:String = **new** String();

**public** **var** resb:String = **new** String();

**public** **var** resc:String = **new** String();

**public** **var** resd:String = **new** String();

**public** **var** el:String = **new** String();

**public** **var** error:String = **new** String();

**public** **var** q:String = **new** String();

**public** **var** mTimer:Timer=**new** Timer(1000,100);

**public** **var** tp:String = **new** String();

**public** **var** count:int;

**public** **var** CorrAns:String = **new** String();

**public** **var** qst\_no:int;

**public** **var** Area\_outoff:int; **public** **var** Area\_score:int;

**public** **var** CI\_outoff:int; **public** **var** CI\_score:int;

**public** **var** BS\_outoff:int; **public** **var** BS\_score:int;

**public** **var** Per\_outoff:int; **public** **var** Per\_score:int;

**public** **var** PC\_outoff:int; **public** **var** PC\_score:int;

**public** **var** Pro\_outoff:int; **public** **var** Pro\_score:int;

**public** **var** RP\_outoff:int; **public** **var** RP\_score:int;

**public** **var** SI\_outoff:int; **public** **var** SI\_score:int;

**public** **var** TD\_outoff:int; **public** **var** TD\_score:int;

**public** **var** TotalScore:int;

**public** **var** time:int; **public** **var** min:int; **public** **var** sec:int;

**public** **var** a:int; **public** **var** b:int; **public** **var** qstno:int;

**private** **var** arr:Array=**new** Array();

**private** **var** user\_arr:Array=**new** Array();

**private** **var** qid\_arr:Array=**new** Array();

**private** **var** ans\_arr:Array=**new** Array();

**public** **var** test\_ans:String = **new** String();

**public** **var** s:String = **new** String();

**private** **function** Countsec(e:TimerEvent):**void**

{

lbltime.text=e.target.currentCount;

}

**private** **function** Count(f:TimerEvent):**void**

{

time=f.target.currentCount;

min=time/60;

sec=time%60;

time\_rem.text=min.toString()+**'min '**+sec.toString()+**'secs'**

}

**private** **function** Comple(e:TimerEvent):**void**

{

lbltime.text=**'Time Complete'**

}

**private** **function** init():**void**

{

**var** timer:Timer = **new** Timer(3000);

timer.addEventListener(TimerEvent.TIMER, switchImage);

timer.start();

}

**private** **function** switchImage(event:TimerEvent):**void**

{

**if** (HomeImage.source==**"img1.jpg"**)

{

HomeImage.source=**"img2.jpg"**

}

**else** **if** (HomeImage.source==**"img2.jpg"**)

{

HomeImage.source=**"img3.jpg"**

}

**else**

HomeImage.source=**"img1.jpg"**

}

**protected** **function** Sign\_In\_clickHandler(event:MouseEvent):**void**

{

logpan.visible=**true**

Sign\_In.visible=**false**

Sign\_In2.visible=**true**

}

**protected** **function** button1\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Reg'**

}

**protected** **function** LogIn\_clickHandler(event:MouseEvent):**void**

{

roreg.CheckLogin(eid.text,pwd.text); roreg.addEventListener(ResultEvent.RESULT,resulthandler1)

roreg.UserName(eid.text,pwd.text); roreg.addEventListener(ResultEvent.RESULT,resulthandler)

}

**private** **function** resulthandler1(event:ResultEvent):**void**

{

eid.text=**""**

pwd.text=**""**

res=event.result.toString();

**if**(res.match(**"Your Email ID and Password does not match"**))

{

Alert.show(res);

currentState=**'Home'**;

}

**else**

{

currentState=**'RegOption'**;

}

}

**private** **function** resulthandler(event:ResultEvent):**void**

{

r=event.result.toString();

s=res.toString();

user\_arr=s.split(**","**)

userid.text=s;

userid.text=user\_arr[0].toString();

wel.text=user\_arr[1].toString();

}

**protected** **function** button2\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Test\_Start'**

}

**protected** **function** Sign\_In2\_clickHandler(event:MouseEvent):**void**

{

Sign\_In.visible=**true**

Sign\_In2.visible=**false**

logpan.visible=**false**

eid.text=**""**

pwd.text=**""**

}

**protected** **function** submit\_clickHandler(event:MouseEvent):**void**

{

d.text=dd.value.toString();

m.text=mm.value.toString();

yy.text=yyyy.value.toString();

day.text=d.text + **"/"** + m.text + **"/"** + yy.text;

**if**(female.selected=**true**)

{

Sex.text=**"Female"**

}

**if** (password.text==cpassword.text && Name.text!=**""** && Age.text!=**""** && email.text!=**""** && password.text!=**""** && cpassword.text!=**""**)

{

log.InsertFunction(Name.text,day.text,Age.text,Sex.text,email.text,password.text)

currentState=**'RegOption'**

wel.text=Name.text;

}

**else**

{ error=**"Insert all details correctly"**

Alert.show(error)

currentState=**'Reg'**

email.text=**""**

password.text=**""**

cpassword.text=**""**

**return**;

}

}

**protected** **function** button3\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnOpt'**

}

**protected** **function** BnS\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnBnS'**

}

**protected** **function** Lstart\_clickHandler(event:MouseEvent):**void**

{

options.enabled=**true**;

AnE.enabled=**true**;

Workspace.enabled=**true**

question.question(no.text,topic.text);

question.addEventListener(ResultEvent.RESULT,resulthandler12)

mTimer.start();

mTimer.addEventListener(TimerEvent.TIMER,Countsec);

Lstart.enabled=**false**

}

**private** **function** resulthandler12(event:ResultEvent):**void**

{

res=event.result.toString();

q=res.toString()

arr=q.split(**","**)

qst.text=arr[0].toString();

opta.label=arr[1].toString();

optb.label=arr[2].toString();

optc.label=arr[3].toString();

optd.label=arr[4].toString();

exp\_img.text=arr[5].toString();

CorrAns=arr[6].toString();

**if**(no.text==**'15'**)

{

Learn\_nxt.label=**"Learn other topic"**;

}

}

**protected** **function** AnE\_clickHandler(event:MouseEvent):**void**

{

scroll.visible=**false**

chkdntknw.selected=**false**

**if**(options.selectedValue == **null**)

{

case1.visible=**true**

Workspace.enabled=**false**

AnE.enabled=**false**

}

**else** **if** (CorrAns!=lblans.text)

{

case2.visible=**true**

Workspace.enabled=**false**

AnE.enabled=**false**

mTimer.stop(); mTimer.addEventListener(TimerEvent.TIMER\_COMPLETE,Comple);

storetime.text=lbltime.text;

}

**else** **if**(CorrAns==lblans.text && cnt1.text >**'1'**)

{

case3.visible=**true**

Workspace.enabled=**false**

AnE.enabled=**false**

mTimer.stop();

mTimer.addEventListener(TimerEvent.TIMER\_COMPLETE,Comple);

storetime1.text=lbltime.text;

}

**else** **if** (CorrAns==lblans.text && cnt1.text ==**'1'**)

{

case4.visible=**true**

Workspace.enabled=**false**

AnE.enabled=**false**

mTimer.stop();

mTimer.addEventListener(TimerEvent.TIMER\_COMPLETE,Comple);

storetime2.text=lbltime.text;

}

}

**protected** **function** Learn\_nxt\_clickHandler(event:MouseEvent):**void**

{

case3.visible=**false**

case4.visible=**false**

AnE.enabled=**true**

Workspace.enabled=**true**

Learn\_nxt.enabled=**false**

scroll2.visible=**false**

Exp.source=**""**

count=0;

txtwork.text=**""**

no.text=(parseInt(no.text)+1).toString();

opta.selected=**false**;optb.selected=**false**;optc.selected=**false**;optd.selected=**false**

**if**(no.text==**'16'**)

{

currentState=**'LearnOpt'**

**return**;

}

question.question(no.text,topic.text);

question.addEventListener(ResultEvent.RESULT,resulthandler12)

mTimer.reset();

mTimer.start();

}

**protected** **function** Home\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Home'**

}

**protected** **function** LArea\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnArea1'**

}

**protected** **function** LBnS\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnBnS'**

}

**protected** **function** LCI\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnCI1'**

}

**protected** **function** LPT\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPercent1'**

}

**protected** **function** LPC\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPnC1'**

}

**protected** **function** LSI\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnSI'**

}

**protected** **function** A1\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnArea2'**

}

**protected** **function** A2\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnArea3'**

}

**protected** **function** A3\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnArea4'**

}

**protected** **function** AEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'**

topic.text=**"Area"**

}

**protected** **function** BnSEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'** topic.text=**"BoatsStreams"**

}

**protected** **function** C1\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnCI2'**

}

**protected** **function** CIEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'**

topic.text=**"CompoundInterest"**

}

**protected** **function** P1\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPercent2'**

}

**protected** **function** P2\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPercent3'**

}

**protected** **function** PEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'**

topic.text=**"Percentage"**

}

**protected** **function** PnC1\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPnC2'**

}

**protected** **function** PnC2\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPnC3'**

}

**protected** **function** PnC3\_clickHandler(event:MouseEvent):**void**

{

currentState=**'LearnPnC4'**

}

**protected** **function** PnCEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'***// TODO Auto-generated method stub*

topic.text=**"PermutationCombination"**

}

**protected** **function** SIEx\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Learn'**

topic.text=**"SimpleInterest"**

}

**protected** **function** opta\_clickHandler(event:MouseEvent):**void**

{

count=count+1 cnt.text=count.toString();

cnt1.text=count.toString();

lblans.text=**"opta"**;

}

**protected** **function** optb\_clickHandler(event:MouseEvent):**void**

{

count=count+1 cnt.text=count.toString();

cnt1.text=count.toString();

lblans.text=**"optb"**;

}

**protected** **function** optc\_clickHandler(event:MouseEvent):**void**

{

count=count+1;

cnt.text=count.toString();

cnt1.text=count.toString();

lblans.text=**"optc"**;

}

**protected** **function** optd\_clickHandler(event:MouseEvent):**void**

{

count=count+1;

cnt.text=count.toString();

cnt1.text=count.toString();

lblans.text=**"optd"**;

}

**protected** **function** Workspace\_clickHandler(event:MouseEvent):**void**

{

scroll.visible=**true**

}

**protected** **function** button4\_clickHandler(event:MouseEvent):**void**

{

**if** (chkdntknw.selected==**true**)

{

scroll.visible=**false**;

scroll2.visible=**true**

Exp.source=exp\_img.text;

mTimer.stop();

mTimer.addEventListener(TimerEvent.TIMER\_COMPLETE,Comple);

case1.visible=**false**

Learn\_nxt.enabled=**true**

storetime.text=lbltime.text;

}

**else**

{

case1.visible=**false**

AnE.enabled=**true**

Workspace.enabled=**true**

}

}

**protected** **function** chkdntknw\_clickHandler(event:MouseEvent):**void**

{

chkbakquest.selected=**false**

chkdntknw.selected=**true**

}

**protected** **function** chkbakquest\_clickHandler(event:MouseEvent):**void**

{

chkdntknw.selected=**false**

chkbakquest.selected=**true**

}

**protected** **function** button5\_clickHandler(event:MouseEvent):**void**

{

scroll.visible=**false**

Learn\_nxt.enabled=**true**

case2.visible=**false**

scroll2.visible=**true**

Exp.source=exp\_img.text;

}

**protected** **function** button6\_clickHandler(event:MouseEvent):**void**

{

scroll.visible=**false**

Learn\_nxt.enabled=**true**

case3.visible=**false**

case4.visible=**false**

scroll2.visible=**true**

Exp.source=exp\_img.text;

}

**protected** **function** test\_opta\_clickHandler(event:MouseEvent):**void**

{

lbltest\_ans.text=**"opta"**

}

**protected** **function** test\_optb\_clickHandler(event:MouseEvent):**void**

{

lbltest\_ans.text=**"optb"**

}

**protected** **function** test\_optc\_clickHandler(event:MouseEvent):**void**

{

lbltest\_ans.text=**"optc"**

}

**protected** **function** test\_optd\_clickHandler(event:MouseEvent):**void**

{

lbltest\_ans.text=**"optd"**

}

**protected** **function** button7\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Test'**

qst\_no=(parseInt(userid.text));

question.Testquestion(qst\_no,test\_level.text);

question.addEventListener(ResultEvent.RESULT,resulthandler20)

mTimer.start();

mTimer.addEventListener(TimerEvent.TIMER,Count);

}

**private** **function** resulthandler20(event:ResultEvent):**void**

{

res=event.result.toString();

q=res.toString()

arr=q.split(**","**)

test\_qid.text=arr[0].toString();

test\_quest.text=arr[1].toString();

test\_opta.label=arr[2].toString();

test\_optb.label=arr[3].toString();

test\_optc.label=arr[4].toString();

test\_optd.label=arr[5].toString();

test\_CorrAns.text=arr[6].toString();

test\_Exp.text=arr[7].toString();

test\_Topic.text=arr[8].toString();

qid\_arr[a]=test\_qid.text;

a=a+1;

}

[**Bindable**]

**public** **var** expenses:ArrayCollection;

**protected** **function** Sub\_Ans\_clickHandler(event:MouseEvent):**void**

{

test\_ans=lbltest\_ans.text;

test\_ans=test\_ans.split(**'opt'**).toString();

test\_ans=test\_ans.toUpperCase();

ans\_arr[b]=test\_ans.toString();

b=b+1;

test\_no.text=(parseInt(test\_no.text)+1).toString();

qst\_no = (parseInt(test\_no.text))\* (parseInt(userid.text));

test\_opta.selected=**false**;

test\_optb.selected=**false**;

test\_optc.selected=**false**;

test\_optd.selected=**false**;

**if**(test\_Topic.text==**'Area'**)

{

Area\_outoff=Area\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

Area\_score=Area\_score + 1;

TotalScore=TotalScore + 1;

}

}

**else** **if**(test\_Topic.text==**'Boat'**)

{

BS\_outoff=BS\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

BS\_score=BS\_score + 1;

TotalScore=TotalScore + 1;

}

}

**else** **if**(test\_Topic.text==**'Percentage'**)

{

Per\_outoff=Per\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

Per\_score=Per\_score + 1;

TotalScore=TotalScore + 1;

}

}

**else** **if**(test\_Topic.text==**'Permutation'**)

{

PC\_outoff=PC\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

PC\_score=PC\_score + 1;

TotalScore=TotalScore + 1;

}

}

**else** **if**(test\_Topic.text==**'SimpleInterest'**)

{

SI\_outoff=SI\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

SI\_score=SI\_score + 1;

TotalScore=TotalScore + 1;

}

}

**else** **if**(test\_Topic.text==**'TimeDistance'**)

{

TD\_outoff=TD\_outoff + 1;

**if** (test\_CorrAns.text==lbltest\_ans.text)

{

TD\_score=TD\_score + 1;

TotalScore=TotalScore + 1;

}

}

**if** (qst\_no < 31)

{

question.Testquestion(qst\_no,test\_level.text); question.addEventListener(ResultEvent.RESULT,resulthandler20)

}

**else**

{

qst\_no=qst\_no-29; question.Testquestion(qst\_no,test\_level.text); question.addEventListener(ResultEvent.RESULT,resulthandler20)

}

TS.text=TotalScore.toString();

**if** (test\_no.text==**'45'**)

{

Exit.visible=**false**;

Sub\_Ans.enabled=**false**;

Report.visible=**true**;

}

}

**protected** **function** Report\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Report'**

mTimer.stop(); mTimer.addEventListener(TimerEvent.TIMER\_COMPLETE,Comple);

expenses=**new** ArrayCollection(

[{Topic:**"Area"**, OutOff:Area\_outoff, Score:Area\_score},

{Topic:**"Boats Stream"**, OutOff:BS\_outoff, Score:BS\_score},

{Topic:**"Compound Interest"**, OutOff:CI\_outoff, Score:CI\_score},

{Topic:**"Percentage"**, OutOff:Per\_outoff, Score:Per\_score},

{Topic:**"Probability"**, OutOff:Pro\_outoff, Score:Pro\_score},

{Topic:**"Ratio Proportion"**, OutOff:RP\_outoff, Score:RP\_score},

{Topic:**"Simple Interest"**, OutOff:SI\_outoff, Score:SI\_score},

{Topic:**"Time Distance"**, OutOff:TD\_outoff, Score:TD\_score},

{Topic:**"Permutation Combination"**, OutOff:PC\_outoff, Score:PC\_score}]);

time\_report.text=time\_rem.text;

}

**protected** **function** Exit\_clickHandler(event:MouseEvent):**void**

{

currentState=**'RegOption'**;

}

**protected** **function** test\_details\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Details'**

}

**protected** **function** chk\_AnE\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Test\_AnE'**

a=0;

qstno=qid\_arr[a];

question.Testquestion(qstno,test\_level.text);

question.addEventListener(ResultEvent.RESULT,resulthandler21)

b=0;

}

**protected** **function** Test\_next\_clickHandler(event:MouseEvent):**void**

{

qno.text=(parseInt(qno.text)+1).toString();

qstno=qid\_arr[a];

question.Testquestion(qstno,test\_level.text);

question.addEventListener(ResultEvent.RESULT,resulthandler21)

**if**(qno.text==**'45'**)

{

Test\_next.visible=**false**;

Exit\_AnE.visible=**true**;

}

}

**private** **function** resulthandler21(event:ResultEvent):**void**

{

res=event.result.toString();

q=res.toString()

arr=q.split(**","**) det\_quest.text=arr[1].toString();

det\_a.text=arr[2].toString();

det\_b.text=arr[3].toString();

det\_c.text=arr[4].toString();

det\_d.text=arr[5].toString();

det\_img.source=arr[7].toString();

test\_urans.text=ans\_arr[b];

b=b+1;

}

**protected** **function** Exit\_AnE\_clickHandler(event:MouseEvent):**void**

{

currentState=**'RegOption'**

}

**protected** **function** L1\_clickHandler(event:MouseEvent):**void**

{

button7.enabled=**true**;

test\_level.text=**"Level1"**;

}

**protected** **function** L2\_clickHandler(event:MouseEvent):**void**

{

button7.enabled=**true**;

test\_level.text=**"Level2"**;

}

**protected** **function** L3\_clickHandler(event:MouseEvent):**void**

{

button7.enabled=**true**;

test\_level.text=**"Level3"**;

}

**protected** **function** Back\_clickHandler(event:MouseEvent):**void**

{

currentState=**'Details'**;

}

]]>

</fx:Script>

<s:states>

<s:State name="Home"/>

<s:State name="Reg"/>

<s:State name="RegOption"/>

<s:State name="Test"/>

<s:State name="Learn"/>

<s:State name="LearnOpt"/>

<s:State name="LearnArea1"/>

<s:State name="LearnArea2"/>

<s:State name="LearnArea3"/>

<s:State name="LearnArea4"/>

<s:State name="LearnBnS"/>

<s:State name="LearnCI1"/>

<s:State name="LearnCI2"/>

<s:State name="LearnPercent1"/>

<s:State name="LearnPercent2"/>

<s:State name="LearnPercent3"/>

<s:State name="LearnPnC1"/>

<s:State name="LearnPnC2"/>

<s:State name="LearnPnC3"/>

<s:State name="LearnPnC4"/>

<s:State name="LearnSI"/>

<s:State name="Report"/>

<s:State name="Test\_Start"/>

<s:State name="Details"/>

<s:State name="Test\_AnE"/>

</s:states>

<fx:Declarations>

<s:RemoteObject id="log" source="Final.RegistrationService" destination="ColdFusion" />

<s:RemoteObject id="roreg" source="Final.RegistrationService" destination="ColdFusion" />

<s:RemoteObject id="question" source="Final.Question" destination="ColdFusion" />

<s:RemoteObject id="testquest" source="Final.Eval" destination="ColdFusion" />

<s:RadioButtonGroup id="options" enabled="false"/>

<!-- Place non-visual elements (e.g., services, value objects) here -->

</fx:Declarations>

<s:TextInput width="155" id="s1" enabled="true" x="681.8" y="35.75"/>

<s:Label height="22" id="l3" text="Search" fontSize="16" fontStyle="normal" textDecoration="none" fontWeight="bold" width="54" x="607" y="40.45"/>

<s:Button id="bt1" label="GO" enabled="true" fontSize="15" width="49" x="844.4" y="36.25" fontWeight="bold"/>

<s:BorderContainer x="80.2" y="0.4" width="840" height="28" backgroundColor="#0892E2" rollOverColor="#CEDBEF">

</s:BorderContainer>

<s:BorderContainer width="840" backgroundColor="#0892E2" rollOverColor="#CEDBEF" x="80.45" y="70.75" height="28">

<s:Button visible="true" x="524" y="-1" label="SIGN IN" height="28" width="149" id="Sign\_In" enabled="true" click="Sign\_In\_clickHandler(event)" fontWeight="bold" includeIn="Home"/>

<s:Button visible="false" includeIn="Home" x="524" y="-1" label="SIGN IN" width="149" height="28" id="Sign\_In2" click="Sign\_In2\_clickHandler(event)" fontWeight="bold"/>

</s:BorderContainer>

<mx:Image x="99" y="32" source="logo1.JPG" height="35" width="33"/>

<s:Label id="l1" text="ATHENA" color="#000307" fontSize="26" x="141" y="40" height="20" width="110" fontWeight="bold"/>

<s:Label id="l2" text="INDIA" color="#798A8E" width="77" x="254" fontSize="26" y="40" height="20" fontWeight="bold"/>

<s:Button id="abt" label="About Us" enabled="true" x="80.45" width="248" height="35" fontSize="20" chromeColor="#FF9900" width.Learn="202" width.LearnOpt="202" x.Home="80.45" y.Home="107.85" x.Reg="80.45" y.Reg="107.85" x.RegOption="80.45" y.RegOption="107.85" y.Test="107.85" y.Learn="107.85" y.LearnOpt="107.85" width.LearnArea1="202" y.LearnArea1="107.85" width.LearnArea2="202" y.LearnArea2="107.85" width.LearnArea3="202" y.LearnArea3="107.85" width.LearnArea4="202" y.LearnArea4="107.85" width.LearnBnS="202" y.LearnBnS="107.85" width.LearnCI1="202" y.LearnCI1="107.85" width.LearnCI2="202" y.LearnCI2="107.85" width.LearnPercent1="202" y.LearnPercent1="107.85" width.LearnPercent2="202" y.LearnPercent2="107.85" width.LearnPercent3="202" y.LearnPercent3="107.85" width.LearnPnC1="202" y.LearnPnC1="107.85" width.LearnPnC2="202" y.LearnPnC2="107.85" width.LearnPnC3="202" y.LearnPnC3="107.85" width.LearnPnC4="202" y.LearnPnC4="107.85" width.LearnSI="202" y.LearnSI="107.85" width.Report="202" y.Report="107.85" width.Test="202" x.Test\_Start="80.45" y.Test\_Start="107.85" width.Details="202" y.Details="107.85" width.Test\_AnE="202" y.Test\_AnE="107.85"/>

<s:Button width="248" id="crs" enabled="true" fontSize="20" chromeColor="#FF9900" height="35" x.Home="80.45" y.Home="142.25" x.Reg="80.45" y.Reg="142.25" x.RegOption="80.45" y.RegOption="142.25" x.Test="280.45" y.Test="107.85" label.Reg="Courses" label.Home="Courses" label.RegOption="Courses" label.Test="Courses" label.Learn="Courses" x.Learn="280.45" y.Learn="107.85" width.Learn="218" label.LearnOpt="Courses" width.LearnOpt="218" x.LearnOpt="280.45" y.LearnOpt="107.85" label.LearnArea1="Courses" width.LearnArea1="218" x.LearnArea1="280.45" y.LearnArea1="107.85" label.LearnArea2="Courses" width.LearnArea2="218" x.LearnArea2="280.45" y.LearnArea2="107.85" label.LearnArea3="Courses" width.LearnArea3="218" x.LearnArea3="280.45" y.LearnArea3="107.85" label.LearnArea4="Courses" width.LearnArea4="218" x.LearnArea4="280.45" y.LearnArea4="107.85" label.LearnBnS="Courses" width.LearnBnS="218" x.LearnBnS="280.45" y.LearnBnS="107.85" label.LearnCI1="Courses" width.LearnCI1="218" x.LearnCI1="280.45" y.LearnCI1="107.85" label.LearnCI2="Courses" width.LearnCI2="218" x.LearnCI2="280.45" y.LearnCI2="107.85" label.LearnPercent1="Courses" width.LearnPercent1="218" x.LearnPercent1="280.45" y.LearnPercent1="107.85" label.LearnPercent2="Courses" width.LearnPercent2="218" x.LearnPercent2="280.45" y.LearnPercent2="107.85" label.LearnPercent3="Courses" width.LearnPercent3="218" x.LearnPercent3="280.45" y.LearnPercent3="107.85" label.LearnPnC1="Courses" width.LearnPnC1="218" x.LearnPnC1="280.45" y.LearnPnC1="107.85" label.LearnPnC2="Courses" width.LearnPnC2="218" x.LearnPnC2="280.45" y.LearnPnC2="107.85" label.LearnPnC3="Courses" width.LearnPnC3="218" x.LearnPnC3="280.45" y.LearnPnC3="107.85" label.LearnPnC4="Courses" width.LearnPnC4="218" x.LearnPnC4="280.45" y.LearnPnC4="107.85" label.LearnSI="Courses" width.LearnSI="218" x.LearnSI="280.45" y.LearnSI="107.85" label.Report="Courses" width.Report="218" x.Report="280.45" y.Report="107.45" width.Test="218" label.Test\_Start="Courses" x.Test\_Start="80.45" y.Test\_Start="142.25" label.Details="Courses" width.Details="218" x.Details="280.45" y.Details="107.85" label.Test\_AnE="Courses" width.Test\_AnE="218" x.Test\_AnE="280.45" y.Test\_AnE="107.85"/>

<s:Button width="248" id="srvc" height="35" fontSize="20" label="Services" enabled="true" chromeColor="#FF9900" x.Home="80.45" y.Home="175.85" x.Reg="80.45" y.Reg="175.85" x.RegOption="80.45" y.RegOption="175.85" x.Test="497.45" y.Test="107.85" x.Learn="497.45" y.Learn="107.85" width.Learn="207" width.LearnOpt="207" x.LearnOpt="497.45" y.LearnOpt="107.85" width.LearnArea1="207" x.LearnArea1="497.45" y.LearnArea1="107.85" width.LearnArea2="207" x.LearnArea2="497.45" y.LearnArea2="107.85" width.LearnArea3="207" x.LearnArea3="497.45" y.LearnArea3="107.85" width.LearnArea4="207" x.LearnArea4="497.45" y.LearnArea4="107.85" width.LearnBnS="207" x.LearnBnS="497.45" y.LearnBnS="107.85" width.LearnCI1="207" x.LearnCI1="497.45" y.LearnCI1="107.85" width.LearnCI2="207" x.LearnCI2="497.45" y.LearnCI2="107.85" width.LearnPercent1="207" x.LearnPercent1="497.45" y.LearnPercent1="107.85" width.LearnPercent2="207" x.LearnPercent2="497.45" y.LearnPercent2="107.85" width.LearnPercent3="207" x.LearnPercent3="497.45" y.LearnPercent3="107.85" width.LearnPnC1="207" x.LearnPnC1="497.45" y.LearnPnC1="107.85" width.LearnPnC2="207" x.LearnPnC2="497.45" y.LearnPnC2="107.85" width.LearnPnC3="207" x.LearnPnC3="497.45" y.LearnPnC3="107.85" width.LearnPnC4="207" x.LearnPnC4="497.45" y.LearnPnC4="107.85" width.LearnSI="207" x.LearnSI="497.45" y.LearnSI="107.85" width.Report="207" x.Report="497.45" y.Report="107.85" width.Test="207" x.Test\_Start="80.45" y.Test\_Start="175.85" width.Details="207" x.Details="497.45" y.Details="107.85" width.Test\_AnE="207" x.Test\_AnE="497.45" y.Test\_AnE="107.85"/>

<s:Button width="248" chromeColor="#FF9900" fontSize="20" id="cont" label="Contact Us" enabled="true" height="35" x.Home="80.45" y.Home="209.5" x.Reg="80.45" y.Reg="209.5" x.RegOption="80.45" y.RegOption="209.5" x.Test="703.45" y.Test="107.85" x.Learn="703.45" y.Learn="107.85" width.Learn="216" width.LearnOpt="216" x.LearnOpt="703.45" y.LearnOpt="107.85" width.LearnArea1="216" x.LearnArea1="703.45" y.LearnArea1="107.85" width.LearnArea2="216" x.LearnArea2="703.45" y.LearnArea2="107.85" width.LearnArea3="216" x.LearnArea3="703.45" y.LearnArea3="107.85" width.LearnArea4="216" x.LearnArea4="703.45" y.LearnArea4="107.85" width.LearnBnS="216" x.LearnBnS="703.45" y.LearnBnS="107.85" width.LearnCI1="216" x.LearnCI1="703.45" y.LearnCI1="107.85" width.LearnCI2="216" x.LearnCI2="703.45" y.LearnCI2="107.85" width.LearnPercent1="216" x.LearnPercent1="703.45" y.LearnPercent1="107.85" width.LearnPercent2="216" x.LearnPercent2="703.45" y.LearnPercent2="107.85" width.LearnPercent3="216" x.LearnPercent3="703.45" y.LearnPercent3="107.85" width.LearnPnC1="216" x.LearnPnC1="703.45" y.LearnPnC1="107.85" width.LearnPnC2="216" x.LearnPnC2="703.45" y.LearnPnC2="107.85" width.LearnPnC3="216" x.LearnPnC3="703.45" y.LearnPnC3="107.85" width.LearnPnC4="216" x.LearnPnC4="703.45" y.LearnPnC4="107.85" width.LearnSI="216" x.LearnSI="703.45" y.LearnSI="107.85" width.Report="216" x.Report="703.45" y.Report="107.85" width.Test="216" x.Test\_Start="80.45" y.Test\_Start="209.5" width.Details="216" x.Details="703.45" y.Details="107.85" width.Test\_AnE="216" x.Test\_AnE="703.45" y.Test\_AnE="107.85"/>

<s:RadioButton includeIn="Learn" x="618" y="192" groupName="options" width="275" id="opta" fontSize="15" click="opta\_clickHandler(event)"/>

<s:RadioButton includeIn="Learn" x="618" y="236" groupName="options" width="275" id="optb" fontSize="15" click="optb\_clickHandler(event)"/>

<s:RadioButton includeIn="Learn" x="618" y="279" groupName="options" width="275" id="optc" fontSize="15" click="optc\_clickHandler(event)"/>

<s:RadioButton includeIn="Learn" x="618" y="321" groupName="options" width="275" id="optd" fontSize="15" click="optd\_clickHandler(event)"/>

<s:Button includeIn="Learn" x="80" y="157" label="Start" id="Lstart" click="Lstart\_clickHandler(event)"/>

<s:Label includeIn="Learn" x="599" y="196" id="ota" fontSize="15" text="A."/>

<s:Label includeIn="Learn" x="599" y="240" id="otb" fontSize="15" text="B."/>

<s:Label includeIn="Learn" x="599" y="284" id="otc" fontSize="15" text="C."/>

<s:Label includeIn="Learn" x="601" y="326" id="otd" fontSize="15" text="D."/>

<mx:Image includeIn="Learn" x="747" y="389" id="Time" source="timer.jpg" width="172" height="159"/>

<mx:Label includeIn="Learn" x="668" y="463" fontSize="30" id="lbltime" fontWeight="bold"/>

<s:Label x="694.9" y="344.7" text="Not a member yet?" fontWeight="bold" fontSize="23" fontStyle="italic" includeIn="Home" width="212"/>

<s:Button x="722" y="389" label="SIGN UP" width="149" height="28" fontWeight="bold" includeIn="Home" click="button1\_clickHandler(event)"/>

<mx:Image includeIn="Home" x="365" y="107" id="HomeImage" width="555" height="155" source="img1.JPG"/>

<s:Panel visible="false" x="608" y="102" width="312" height="143" id="logpan" dropShadowVisible="true" borderVisible="false" enabled="true" includeIn="Home">

<s:Button x="73.25" y="74.6" label="Log In" width="145" height="30" id="LogIn" enabled="true" fontWeight="bold" click="LogIn\_clickHandler(event)"/>

<s:TextInput x="129" y="9" id="eid" width="161"/>

<s:TextInput x="129" y="39" id="pwd" displayAsPassword="true" width="161"/>

<s:Label x="26" y="16" text="USER ID" width="69" height="12" fontSize="12" fontWeight="normal" fontStyle="normal" fontFamily="Arial"/>

<s:Label x="26" y="46" text="PASSWORD" width="82" height="10" fontSize="12" fontFamily="Arial" fontWeight="normal"/>

</s:Panel>

<mx:HRule x="128" y="570" width="743" chromeColor="#010101"/>

<s:Label x="128" y="581" width="196" text="COPYRIGHT © 2011 ATHENA INDIA"/>

<s:Label includeIn="RegOption,Test\_Start" x="367" y="128" text="Welcome" fontSize="15"/>

<s:Label includeIn="RegOption,Test\_Start" x="445" y="126" id="wel" fontSize="15" x.Test="903" y.Test="547" fontWeight.RegOption="bold" width.RegOption="113" fontWeight.Test\_Start="bold"/>

<s:Label x="359.75" y="120.6" text="Name " fontWeight="bold" fontSize="20" width="173" height="19" includeIn="Reg"/>

<s:Label x="361.3" y="204.2" text="Age" height="19" fontWeight="bold" fontSize="20" width="173" includeIn="Reg"/>

<s:Label x="361.2" y="246" text="Sex " fontStyle="normal" fontSize="20" fontWeight="bold" width="173" height="19" includeIn="Reg"/>

<s:Label x="359.75" y="292.4" text="Email ID" fontWeight="bold" fontSize="20" width="173" height="19" includeIn="Reg"/>

<s:Label x="361.25" y="340.8" text="Password" fontWeight="bold" fontSize="20" width="173" height="19" includeIn="Reg"/>

<s:Label x="360.7" y="385.35" text="Retype Password" fontWeight="bold" fontSize="20" width="173" height="19" includeIn="Reg"/>

<s:Label x="360.25" y="164.65" text="D O B " fontWeight="bold" fontSize="18" width="173" height="19" includeIn="Reg"/>

<s:TextInput x="615.9" y="120.6" width="298" includeIn="Reg" id="Name" />

<s:TextInput x="615.45" y="204.2" includeIn="Reg" id="Age"/>

<s:RadioButton x="615.05" y="242.45" label="Male" enabled="true" fontSize="20" includeIn="Reg" id="male" selected="true"/>

<s:RadioButton x="740.9" y="242" label="Female" enabled="true" fontSize="20" includeIn="Reg" id="female"/>

<s:TextInput x="615" y="292" width="299" includeIn="Reg" id="email"/>

<s:TextInput displayAsPassword="true" x="615.7" y="385.3" width="299" includeIn="Reg" id="cpassword"/>

<s:TextInput displayAsPassword="true" x="615.85" y="340.8" width="299" includeIn="Reg" id="password"/>

<s:Button includeIn="Reg" x="520" y="459" label="SUBMIT" width="141" height="38" fontWeight="bold" id="submit" click="submit\_clickHandler(event)"/>

<s:NumericStepper includeIn="Reg" x="615" y="160.65" minimum="1" maximum="31" id="dd"/>

<s:NumericStepper includeIn="Reg" x="690" y="160" minimum="1" maximum="12" id="mm"/>

<s:NumericStepper includeIn="Reg" x="771" y="160" minimum="1981" maximum="2004" id="yyyy"/>

<mx:Image includeIn="Reg" x="80" y="265" source="form.JPG" width="250" height="166"/>

<s:Label x="167.7" y="263.2" text=" How can Athena India help you..." width="636" height="39" id="lab" fontStyle="normal" fontSize="35" includeIn="RegOption" verticalAlign="middle"/>

<mx:Image x="117.15" y="310.55" source="learn with activities.JPG" width="209" height="190" includeIn="RegOption"/>

<mx:Image x="635.25" y="310.55" source="test.jpg" height="190" width="237" includeIn="RegOption"/>

<s:Button includeIn="RegOption" x="72" y="517" label="LEARN" chromeColor="#0892E2" width="296" height="45" fontSize="18" fontWeight="bold" click="button3\_clickHandler(event)"/>

<s:Button includeIn="RegOption" x="614" y="517" label="TAKE TEST" chromeColor="#0892E2" width="296" height="45" fontSize="18" fontWeight="bold" click="button2\_clickHandler(event)"/>

<s:Panel x="83.45" y="151" width="248" height="411" id="pan2" title="QUESTION NUMBER" enabled="true" fontSize="20" includeIn="Test" chromeColor="#0892E2" dropShadowVisible="false" fontWeight="bold" borderVisible="true">

<s:Button x="3" y="10" label="1" width="36" fontSize="15" chromeColor="#66BAEA" id="q1"/>

<s:Button x="4" y="91.7" label="11" width="36" fontSize="15" chromeColor="#66BAEA" id="q11"/>

<s:Button x="159" y="133.9" label="19" width="36" fontSize="15" chromeColor="#66BAEA" id="q19"/>

<s:Button x="106" y="133.9" label="18" width="36" fontSize="15" chromeColor="#66BAEA" id="q18"/>

<s:Button x="54" y="133.9" label="17" width="36" fontSize="15" chromeColor="#66BAEA" id="q17"/>

<s:Button x="159" y="175.9" label="24" width="36" fontSize="15" chromeColor="#66BAEA" id="q24"/>

<s:Button x="159" y="219.7" label="29" width="36" fontSize="15" chromeColor="#66BAEA" id="q29"/>

<s:Button x="209" y="219.7" label="30" width="36" fontSize="15" chromeColor="#66BAEA" id="q30"/>

<s:Button x="106" y="219.7" label="28" width="36" fontSize="15" chromeColor="#66BAEA" id="q28"/>

<s:Button x="54" y="219.7" label="27" width="36" fontSize="15" chromeColor="#66BAEA" id="q27"/>

<s:Button x="209" y="175.9" label="25" width="36" fontSize="15" chromeColor="#66BAEA" id="q25"/>

<s:Button x="209" y="133.9" label="20" width="36" fontSize="15" chromeColor="#66BAEA" id="q20"/>

<s:Button x="106" y="175.9" label="23" width="36" fontSize="15" chromeColor="#66BAEA" id="q23"/>

<s:Button x="54" y="175.9" label="22" width="36" fontSize="15" chromeColor="#66BAEA" id="q22"/>

<s:Button x="4" y="219.7" label="26" width="36" fontSize="15" chromeColor="#66BAEA" id="q26"/>

<s:Button x="5" y="175.9" label="21" width="36" fontSize="15" chromeColor="#66BAEA" id="q21"/>

<s:Button x="208" y="49.35" label="10" width="36" fontSize="15" chromeColor="#66BAEA" id="q10"/>

<s:Button x="208" y="10" label="5" width="36" fontSize="15" chromeColor="#66BAEA" id="q5"/>

<s:Button x="158" y="49.35" label="9" width="36" fontSize="15" chromeColor="#66BAEA" id="q9"/>

<s:Button x="105" y="49.35" label="8" width="36" fontSize="15" chromeColor="#66BAEA" id="q8"/>

<s:Button x="53" y="49.35" label="7" width="36" fontSize="15" chromeColor="#66BAEA" id="q7"/>

<s:Button x="3" y="49.35" label="6" width="36" fontSize="15" chromeColor="#66BAEA" id="q6"/>

<s:Button x="158" y="10" label="4" width="36" fontSize="15" chromeColor="#66BAEA" id="q4"/>

<s:Button x="105" y="10" label="3" width="36" fontSize="15" chromeColor="#66BAEA" id="q3"/>

<s:Button x="53" y="10" label="2" width="36" fontSize="15" chromeColor="#66BAEA" id="q2"/>

<s:Button x="4" y="133.9" label="16" width="36" fontSize="15" chromeColor="#66BAEA" id="q16"/>

<s:Button x="209" y="91.7" label="15" width="36" fontSize="15" chromeColor="#66BAEA" id="q15"/>

<s:Button x="159" y="91.7" label="14" width="36" fontSize="15" chromeColor="#66BAEA" id="q14"/>

<s:Button x="106" y="91.7" label="13" width="36" fontSize="15" chromeColor="#66BAEA" id="q13"/>

<s:Button x="54" y="91.7" label="12" width="36" fontSize="15" chromeColor="#66BAEA" id="q12"/>

<s:Button x="4" y="261" label="31" width="36" chromeColor="#66BAEA" fontSize="15" id="q31"/>

<s:Button x="54" y="261" label="32" fontSize="15" chromeColor="#66BAEA" width="36" id="q32"/>

<s:Button x="106" y="261" label="33" width="36" chromeColor="#66BAEA" fontSize="15" id="q33"/>

<s:Button x="159" y="261" label="34" width="36" chromeColor="#66BAEA" fontSize="15" id="q34"/>

<s:Button x="209" y="261" label="35" fontSize="15" chromeColor="#66BAEA" width="36" id="q35"/>

<s:Button x="4" y="303" label="36" width="36" chromeColor="#66BAEA" fontSize="15" id="q36"/>

<s:Button x="54" y="303" label="37" fontSize="15" chromeColor="#66BAEA" width="36" id="q37"/>

<s:Button x="106" y="303" label="38" width="36" chromeColor="#66BAEA" fontSize="15" id="q38"/>

<s:Button x="159" y="303" label="39" fontSize="15" chromeColor="#66BAEA" width="36" id="q39"/>

<s:Button x="209" y="303" label="40" width="36" fontSize="15" chromeColor="#66BAEA" id="q40"/>

<s:Button x="4" y="343" label="41" fontSize="15" chromeColor="#66BAEA" width="36" id="q41"/>

<s:Button x="54" y="343" label="42" chromeColor="#66BAEA" fontSize="15" width="36" id="q42"/>

<s:Button x="106" y="343" label="43" width="36" chromeColor="#66BAEA" fontSize="15" id="q43"/>

<s:Button x="159" y="343" label="44" fontSize="15" chromeColor="#66BAEA" width="36" id="q44"/>

<s:Button x="209" y="343" label="45" width="36" chromeColor="#66BAEA" fontSize="15" id="q45"/>

</s:Panel>

<s:Panel includeIn="Learn,Test" x="391" y="126" width="494" height="200" title="Question :" x.Learn="88" y.Learn="188" height.Learn="166" dropShadowVisible.Learn="false" title.Learn="Question :" chromeColor.Learn="#0892E2" chromeColor.Test="#0892E2" x.Test="391" y.Test="152" title.Test="QUESTION :" fontSize.Test="15">

<s:Label height="20" id="no" text="1" textAlign="center" x="77" y="-21" width="42" fontSize="15" includeIn="Learn"/>

<s:Label includeIn="Learn" x="10" y="10" width="472" height="113" id="qst" fontSize="15"/>

<s:Label includeIn="Test" x="106" y="-21" text="1" id="test\_no" fontSize="15"/>

<mx:Panel includeIn="Learn" x="251" y="36" visible="false" width="322" height="158" layout="absolute" title="You have not selected any answer" id="case1" chromeColor="#0892E2" fontSize="12">

<s:CheckBox x="31" y="20" label="I Dont Know the Answer" width="258" id="chkdntknw" click="chkdntknw\_clickHandler(event)"/>

<s:CheckBox x="31" y="50" label="I wanna go back to the question" width="258" id="chkbakquest" selected="true" click="chkbakquest\_clickHandler(event)"/>

<s:Button includeIn="Learn" x="121" y="90" label="Go" click="button4\_clickHandler(event)"/>

</mx:Panel>

<mx:Panel includeIn="Learn" visible="false" x="251" y="36" width="322" height="158" layout="absolute" title="Wrong Answer" id="case2">

<mx:Label x="10" y="16" text="You have taken\_\_\_\_\_\_\_\_\_secs to solve the question" width="300"/>

<s:Label includeIn="Learn" x="127" y="16" id="storetime" fontSize="15"/>

<mx:Label includeIn="Learn" x="40" y="46" text="You switched the options\_\_\_\_\_\_\_times"/>

<s:Label includeIn="Learn" x="190" y="46" width="56" id="cnt" height="23" fontSize="15"/>

<s:Label includeIn="Learn" x="100" y="76" text="Were you confused?"/>

<s:Button includeIn="Learn" x="90" y="96" label="Check Correct Answer" click="button5\_clickHandler(event)"/>

</mx:Panel>

<mx:Panel includeIn="Learn" visible="false" x="251" y="36" width="322" height="158" layout="absolute" title="Correct Answer" id="case3">

<mx:Label x="10" y="16" text="You have taken\_\_\_\_\_\_\_\_\_secs to solve the question" width="300"/>

<s:Label includeIn="Learn" x="127" y="16" id="storetime1" fontSize="15"/>

<s:Label x="110" y="40" text="WELL DONE!!!" fontSize="14" fontWeight="bold"/>

<mx:Label includeIn="Learn" x="40" y="56" text="But you switched the options\_\_\_\_\_\_\_times"/>

<s:Label includeIn="Learn" x="205" y="56" width="56" id="cnt1" height="23" fontSize="15"/>

<s:Label includeIn="Learn" x="105" y="76" text="Were you confused?"/>

<s:Button includeIn="Learn" x="30" y="96" label="Check Explanation" click="button6\_clickHandler(event)" />

<s:Button includeIn="Learn" x="190" y="96" label="Next Question" click="Learn\_nxt\_clickHandler(event)" />

</mx:Panel>

<mx:Panel includeIn="Learn" visible="false" x="251" y="36" width="322" height="158" layout="absolute" title="Correct Answer" id="case4">

<mx:Label x="10" y="16" text="You have taken\_\_\_\_\_\_\_\_\_secs to solve the question" width="300"/>

<s:Label includeIn="Learn" x="127" y="16" id="storetime2" fontSize="15"/>

<s:Label x="110" y="40" text="WELL DONE!!!" fontSize="14" fontWeight="bold"/>

<s:Button includeIn="Learn" x="30" y="96" label="Check Explanation" click="button6\_clickHandler(event)" />

<s:Button includeIn="Learn" x="190" y="96" label="Next Question" click="Learn\_nxt\_clickHandler(event)" />

</mx:Panel>

<s:Label includeIn="Test" x="12" y="12" fontSize="15" width="468" height="139" id="test\_quest"/>

</s:Panel>

<s:Button includeIn="Learn" x="657" y="535" label="Next" id="Learn\_nxt" click="Learn\_nxt\_clickHandler(event)" enabled="false"/>

<s:Label includeIn="Reg" x="842" y="196" id="Sex" width="49" text="Male" visible="false"/>

<mx:LinkButton includeIn="Learn" x="82" y="360" enabled="false" label="Answer and Explanation" id="AnE" click="AnE\_clickHandler(event)"/>

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<mx:LinkButton includeIn="LearnOpt" x="400" y="239" label="Boats and Streams" id="LBnS" fontSize="18" click="LBnS\_clickHandler(event)"/>

<mx:LinkButton includeIn="LearnOpt" x="177" y="239" label="Area" fontSize="18" id="LArea" click="LArea\_clickHandler(event)"/>

<mx:LinkButton includeIn="LearnOpt" x="707" y="239" label="Compound Interest" fontSize="18" id="LCI" click="LCI\_clickHandler(event)"/>

<mx:LinkButton includeIn="LearnOpt" x="165" y="347" label="Percentage" fontSize="18" id="LPT" click="LPT\_clickHandler(event)"/>

<mx:LinkButton includeIn="LearnOpt" x="371" y="347" label="Permutation and Combination" fontSize="18" id="LPC" click="LPC\_clickHandler(event)"/>

<mx:LinkButton includeIn="LearnOpt" x="434" y="450" label="Simple Interest" fontSize="18" id="LSI" click="LSI\_clickHandler(event)"/>

<s:Label includeIn="LearnArea1,LearnArea2,LearnArea3,LearnArea4,LearnBnS,LearnCI1,LearnCI2,LearnPercent1,LearnPercent2,LearnPercent3,LearnPnC1,LearnPnC2,LearnPnC3,LearnPnC4,LearnSI" x="393" text="AREA" width="170" height="20" fontSize="15" fontWeight="bold" textAlign="center" x.LearnArea3="393" y.LearnArea3="153" y.LearnArea1="153" y.LearnArea2="153" y.LearnArea4="153" y.LearnBnS="153" y.LearnCI1="153" text.LearnBnS="BOATS AND STREAM" text.LearnCI1="COMPOUND INTEREST" width.LearnCI1="228" x.LearnCI1="377" text.LearnCI2="COMPOUND INTEREST" width.LearnCI2="228" x.LearnCI2="377" y.LearnCI2="153" text.LearnPercent1="PERCENTAGE" width.LearnPercent1="228" x.LearnPercent1="377" y.LearnPercent1="153" text.LearnPercent2="PERCENTAGE" width.LearnPercent2="228" x.LearnPercent2="377" y.LearnPercent2="153" text.LearnPercent3="PERCENTAGE" width.LearnPercent3="228" x.LearnPercent3="377" y.LearnPercent3="153" text.LearnPnC1="PERMUTATION AND COMBINATION" width.LearnPnC1="280" x.LearnPnC1="352" y.LearnPnC1="151" height.LearnPnC1="22" height.LearnPnC2="22" text.LearnPnC2="PERMUTATION AND COMBINATION" width.LearnPnC2="280" x.LearnPnC2="352" y.LearnPnC2="151" height.LearnPnC3="22" text.LearnPnC3="PERMUTATION AND COMBINATION" width.LearnPnC3="280" x.LearnPnC3="352" y.LearnPnC3="151" height.LearnPnC4="22" text.LearnPnC4="PERMUTATION AND COMBINATION" width.LearnPnC4="280" x.LearnPnC4="352" y.LearnPnC4="151" height.LearnSI="22" text.LearnSI="SIMPLE INTEREST" width.LearnSI="280" x.LearnSI="352" y.LearnSI="151"/>

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<s:Button includeIn="LearnArea2" x="789" y="541" label="-----&gt;" fontSize="15" id="A2" click="A2\_clickHandler(event)"/>

<s:Button includeIn="LearnArea3" x="789" y="541" label="-----&gt;" id="A3" fontSize="15" click="A3\_clickHandler(event)"/>

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<s:Label id="l4" text="INDIA" color="#798A8E" width="77" x="254" fontSize="26" y="40" height="20" fontWeight="bold" includeIn="Reg"/>

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<s:Button includeIn="LearnCI2" x="789" y="539" label="Few Example" id="CIEx" click="CIEx\_clickHandler(event)"/>

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<s:Button includeIn="LearnPercent2" x="814" y="541" label="-----&gt;" id="P2" click="P2\_clickHandler(event)"/>

<s:Button includeIn="LearnPercent3" x="823" y="541" label="Few Examples" id="PEx" click="PEx\_clickHandler(event)"/>

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<s:Button includeIn="LearnPnC2" x="823" y="541" label="-----&gt;" id="PnC2" click="PnC2\_clickHandler(event)"/>

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<s:Button includeIn="LearnPnC4" x="823" y="541" label="Few Examples" id="PnCEx" click="PnCEx\_clickHandler(event)"/>

<s:Button includeIn="LearnArea4" x="816" y="537" label="Few Example" id="AEx" click="AEx\_clickHandler(event)"/>

<s:Button includeIn="LearnSI" x="809" y="539" label="Few Examples" id="SIEx" click="SIEx\_clickHandler(event)"/>

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<s:Label includeIn="Test" x="412" y="461" text="C." fontSize="15"/>

<s:Label includeIn="Test" x="681" y="461" text="D." fontSize="15"/>

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</s:Scroller>

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<s:RadioButton includeIn="Test" x="698" y="395" fontSize="15" id="test\_optb" click="test\_optb\_clickHandler(event)" width="173"/>

<s:RadioButton includeIn="Test" x="431" y="454" fontSize="15" id="test\_optc" click="test\_optc\_clickHandler(event)" width="208"/>

<s:RadioButton includeIn="Test" x="700" y="454" fontSize="15" id="test\_optd" click="test\_optd\_clickHandler(event)" width="171"/>

<s:Button enabled="false" includeIn="Test\_Start" x="423" y="492" label="START TEST" fontSize="20" fontWeight="bold" chromeColor="#0892E2" height="37" width="158" click="button7\_clickHandler(event)" id="button7"/>

<s:Button includeIn="Test" x="615" y="531" label="Submit Answer" chromeColor="#0892E2" id="Sub\_Ans" click="Sub\_Ans\_clickHandler(event)"/>

<s:Button includeIn="Test" x="800" y="531" label="EXIT Test" chromeColor="#0892E2" id="Exit" click="Exit\_clickHandler(event)"/>

<s:Label includeIn="Test\_Start" x="893" y="172" id="test\_level" visible="false"/>

<s:Label includeIn="RegOption,Test,Test\_Start" visible="false" x="698" y="126" id="userid" width.RegOption="106"/>

<s:Label includeIn="Test" x="898" y="236" id="test\_qid" visible="false"/>

<s:Label includeIn="Test" x="898" y="296" id="test\_Topic" visible="false"/>

<s:Label includeIn="Test" x="898" y="404" id="test\_Exp" visible="false"/>

<s:Label includeIn="Test" x="898" y="362" id="test\_CorrAns" visible="false"/>

<s:Label includeIn="Test" x="898" y="454" id="lbltest\_ans" visible="false"/>

<s:Label includeIn="Test" x="898" y="510" id="TS" visible="false"/>

<s:Button includeIn="Test" x="800" y="530" visible="false" label="Report" chromeColor="#0892E2" id="Report" click="Report\_clickHandler(event)"/>

<mx:Panel title="Graph" includeIn="Report" dropShadowVisible="false" x="123" y="158" width="767" height="344">

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<mx:CategoryAxis

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/>

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<mx:ColumnSeries

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displayName="Score"

/>

</mx:series>

</mx:ColumnChart>

</mx:Panel>

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<s:Button includeIn="Details" x="351" y="512" label="Check Correct Answer and Explanation" chromeColor="#0892E2" fontSize="14" id="chk\_AnE" click="chk\_AnE\_clickHandler(event)"/>

<s:Label includeIn="Test\_AnE" x="99" y="175" width="450" height="178" id="det\_quest" fontSize="15"/>

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<s:Label x="580" y="275" text="C." fontSize="15" includeIn="Test\_AnE" width="15" height="15"/>

<s:Label x="580" y="325" text="D." fontSize="15" includeIn="Test\_AnE" width="15" height="15"/>

<mx:Label includeIn="Test\_AnE" x="620" y="165" fontSize="15" width="127" height="29" id="det\_a"/>

<mx:Label includeIn="Test\_AnE" x="620" y="214" fontSize="15" width="127" height="29" id="det\_b"/>

<mx:Label includeIn="Test\_AnE" x="620" y="264" fontSize="15" width="127" height="29" id="det\_c"/>

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</s:Group>

</s:Scroller>

<s:Label includeIn="Test\_AnE" x="80" y="358" text="Answer" fontSize="14"/>

<s:Label includeIn="Test\_AnE" x="612" y="432" text="Your Answer :" fontSize="14"/>

<s:Button includeIn="Test\_AnE" x="766" y="541" label="Next" id="Test\_next" chromeColor="#0892E2" click="Test\_next\_clickHandler(event)"/>

<s:Label includeIn="Test\_AnE" x="79" y="174" fontSize="15" text="1" id="qno"/>

<s:Label includeIn="Test\_AnE" x="722" y="432" id="test\_urans" fontSize="14" fontWeight="bold"/>

<s:Button includeIn="Test\_AnE" visible="false" x="766" y="541" label="Exit" chromeColor="#0892E2" id="Exit\_AnE" click="Exit\_AnE\_clickHandler(event)"/>

<s:Panel includeIn="Test\_Start" x="88" y="270" width="813" height="200" dropShadowVisible="false" chromeColor="#0892E2" title="INSTRUCTION:" fontSize="14">

<mx:VRule x="404" y="0" height="167"/>

<s:TextArea x="10" y="10" width="361" editable="false" text="&#xd;Total no. of questions: 45&#xd;&#xd;Time alloted: 45 mins&#xd;&#xd;Each Question carry one mark&#xd;&#xd;" borderVisible="false" fontSize="14" height="147"/>

<s:TextArea x="433" y="16" width="356" height="137" text="Click &quot;Submit Answer&quot; button to submit ur answer&#xd;&#xd;Click &quot;Exit&quot; to exit test&#xd;" editable="false" borderVisible="false"/>

</s:Panel>

<s:Label includeIn="Test\_Start" x="367" y="184" text="Choose the difficulty level:" fontSize="14"/>

<s:Button includeIn="Test\_Start" x="725" y="126" label="Level 1" id="L1" click="L1\_clickHandler(event)"/>

<s:Button includeIn="Test\_Start" x="725" y="175" label="Level 2" id="L2" click="L2\_clickHandler(event)"/>

<s:Button includeIn="Test\_Start" x="725" y="223" label="Level 3" id="L3" click="L3\_clickHandler(event)"/>

<s:Button includeIn="Test\_AnE" x="681" y="541" label="Back" chromeColor="#0892E2" id="Back" click="Back\_clickHandler(event)"/>

<mx:HRule includeIn="Details" x="99" y="174" width="794"/>

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<mx:VRule includeIn="Details" x="516" y="176" height="316"/>

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<mx:HRule includeIn="Details" x="99" y="220" width="794"/>

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<mx:HRule includeIn="Details" x="99" y="370" width="794"/>

<mx:HRule includeIn="Details" x="99" y="400" width="794"/>

<mx:HRule includeIn="Details" x="99" y="430" width="794"/>

<mx:HRule includeIn="Details" x="99" y="490" width="794"/>

<mx:Label includeIn="Details" x="402" y="191" text="OUT OFF" fontSize="14"/>

<mx:Label includeIn="Details" x="554" y="191" text="SCORED" fontSize="14" width="80"/>

<mx:Label includeIn="Details" x="722" y="191" text="WEAK SUBJECT" fontSize="14" width="126"/>

<mx:LinkButton includeIn="LearnOpt" x="165" y="450" label="Ratio Proportion" fontSize="18"/>

<mx:LinkButton includeIn="LearnOpt" x="737" y="341" label="Probability" fontSize="18"/>

<mx:LinkButton includeIn="LearnOpt" x="713" y="442" label="Time and Distance" fontSize="18"/>

</s:Application>

**CHAPTER NO. (VIII)**

1. **Technologies Used**

**Adobe Flash Builder 4:**

Adobe Flash Builder (previously known as Adobe Flex Builder) is an [integrated development environment](http://en.wikipedia.org/wiki/Integrated_development_environment) (IDE) built on the [Eclipse](http://en.wikipedia.org/wiki/Eclipse_(software)) platform and speeds development of [rich Internet applications](http://en.wikipedia.org/wiki/Rich_Internet_application) (RIAs) and [cross-platform](http://en.wikipedia.org/wiki/Cross-platform) [desktop applications](http://en.wikipedia.org/wiki/Desktop_application), particularly for the [Adobe Flash](http://en.wikipedia.org/wiki/Adobe_Flash) platform. Adobe Flash Builder 4 is available in three editions: Standard, Premium and Educational. The package is available free of charge for non-commercial use by students and unemployed developers.

Adobe Flash Builder offers built-in code editors for [MXML](http://en.wikipedia.org/wiki/MXML) and [Action Script](http://en.wikipedia.org/wiki/ActionScript) and a [WYSIWYG](http://en.wikipedia.org/wiki/WYSIWYG) editor for modifying MXML applications. Adobe Flash Builder includes an interactive [debugger](http://en.wikipedia.org/wiki/Debugger) allowing developers to step through code execution while inspecting variables and watching expressions. Flex Builder 3 added support for performance. The profiling view displays statistical information about memory use in addition to function call execution time.

Prior to version 4, this product was known as Flex Builder. The name change is meant to signify its connection to other products in the [Adobe Flash](http://en.wikipedia.org/wiki/Adobe_Flash) Platform and to create a clear distinction between the [Flex SDK](http://en.wikipedia.org/wiki/Adobe_Flex) and the IDE. [15]

**Microsoft SQL Server:**

Microsoft [SQL Server](http://en.wikipedia.org/wiki/SQL_Server) 2005 (codenamed Yukon), released in October 2005, is the successor to SQL Server 2000. It included native support for managing [XML](http://en.wikipedia.org/wiki/XML) data, in addition to [relational data](http://en.wikipedia.org/wiki/Relational_database). For this purpose, it defined an xml [data type](http://en.wikipedia.org/wiki/Data_type) that could be used either as a data type in database columns or as [literals](http://en.wikipedia.org/wiki/Literal_(computer_science)) in queries. XML columns can be associated with [XSD](http://en.wikipedia.org/wiki/XSD) schemas; XML data being stored is verified against the schema. XML is converted to an internal binary data type before being stored in the database. Specialized indexing methods were made available for XML data. XML data is queried using [XQuery](http://en.wikipedia.org/wiki/XQuery); [Common Language Runtime](http://en.wikipedia.org/wiki/Common_Language_Runtime) (CLR) integration was a main feature with this edition, enabling one to write SQL code as Managed Code by the CLR. SQL Server 2005 added some extensions to the [T-SQL](http://en.wikipedia.org/wiki/T-SQL) language to allow embedding XQuery queries in T-SQL. In addition, it also defines a new extension to XQuery, called XML DML that allows query-based modifications to XML data. SQL Server 2005 also allows a database server to be exposed over [web services](http://en.wikipedia.org/wiki/Web_service) using TDS packets encapsulated within [SOAP (protocol)](http://en.wikipedia.org/wiki/SOAP_(protocol)) requests. When the data is accessed over web services, results are returned as XML.

For relational data, [T-SQL](http://en.wikipedia.org/wiki/T-SQL) has been augmented with error handling features (try/catch) and support for recursive queries with CTEs (Common Table Expressions). SQL Server 2005 has also been enhanced with new indexing algorithms, syntax and better error recovery systems. Data pages are [check summed](http://en.wikipedia.org/wiki/Checksum) for better error resiliency, and optimistic concurrency support has been added for better performance. Permissions and access control have been made more granular and the query processor handles concurrent execution of queries in a more efficient way. Partitions on tables and indexes are supported natively, so scaling out a database onto a [cluster](http://en.wikipedia.org/wiki/Cluster_(computing)) is easier. SQL CLR was introduced with SQL Server 2005 to let it integrate with the .NET Framework.

SQL Server 2005 introduced "MARS" (Multiple Active Results Sets), a method of allowing usage of database connections for multiple purposes.

SQL Server 2005 introduced DMVs (Dynamic Management Views), which are specialized views and functions that return server state information that can be used to monitor the health of a server instance, diagnose problems, and tune performance.

SQL Server 2005 introduced Database Mirroring, but it was not fully supported until the first Service Pack release (SP1). In the initial release (RTM) of SQL Server 2005, database mirroring was available, but unsupported. In order to implement database mirroring in the RTM version, you had to apply trace flag 1400 at startup. Database mirroring is a high availability option that provides redundancy and failover capabilities at the database level. Failover can be performed manually or can be configured for automatic failover. Automatic failover requires a witness partner and an operating mode of synchronous (also known as high-safety or full safety).

[SQL Server Express Edition](http://en.wikipedia.org/wiki/SQL_Server_Express)

SQL Server Express Edition is a scaled down, free edition of SQL Server, which includes the core database engine. While there are no limitations on the number of databases or users supported, it is limited to using one processor, 1 GB memory and 4 GB database files (10 GB database files from SQL Server Express 2008 R2). The entire database is stored in a single .mdf file, and thus making it suitable for [XCOPY deployment](http://en.wikipedia.org/wiki/XCOPY_deployment). It is intended as a replacement for [MSDE](http://en.wikipedia.org/wiki/MSDE). Two additional editions provide a superset of features not in the original Express Edition. The first is SQLServer Express with Tools, which includes [SQL Server Management Studio](http://en.wikipedia.org/wiki/SQL_Server_Management_Studio) Basic. SQL Server Express with Advanced Services adds full-text search capability and reporting services. [14]

**Adobe Cold Fusion:**

Adobe ColdFusion software enables developers to rapidly build enterprise-ready Internet applications by condensing complex business logic into fewer lines of code. Plus, unique integration between ColdFusion and the Adobe Flash® Platform provides the easiest solution for building rich Internet applications (RIAs) from client to server. [12]

**Main features**

ColdFusion provides a number of additional features out of the box. Among them:

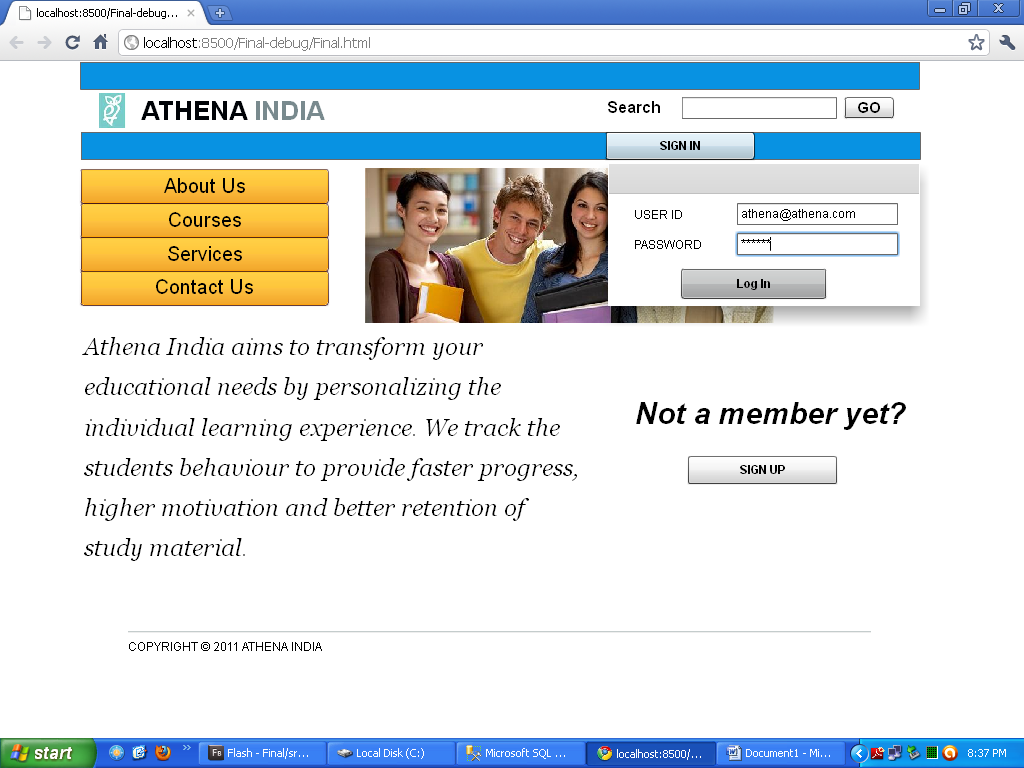
* Simplified database access
* Client and server cache management
* Client-side code generation, especially for form [widgets](http://en.wikipedia.org/wiki/Widget_(computing)) and validation
* Conversion from [HTML](http://en.wikipedia.org/wiki/HyperText_Markup_Language) to [PDF](http://en.wikipedia.org/wiki/Portable_Document_Format) and [Flash Paper](http://en.wikipedia.org/wiki/FlashPaper)
* Data retrieval from common enterprise systems such as [Active Directory](http://en.wikipedia.org/wiki/Active_Directory), [LDAP](http://en.wikipedia.org/wiki/Lightweight_Directory_Access_Protocol), [SMTP](http://en.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol), [POP](http://en.wikipedia.org/wiki/Post_Office_Protocol), [HTTP](http://en.wikipedia.org/wiki/HyperText_Transfer_Protocol), [FTP](http://en.wikipedia.org/wiki/File_Transfer_Protocol), [Microsoft Exchange Server](http://en.wikipedia.org/wiki/Microsoft_Exchange_Server)and common data formats such as [RSS](http://en.wikipedia.org/wiki/RSS) and [Atom](http://en.wikipedia.org/wiki/Atom_(standard))
* [GUI](http://en.wikipedia.org/wiki/Graphical_user_interface) administration
* Server, application, client, session, and request [scopes](http://en.wikipedia.org/wiki/Scope_(programming))
* [XML](http://en.wikipedia.org/wiki/XML) parsing, [querying (XPath)](http://en.wikipedia.org/wiki/XPath), validation and [transformation (XSLT)](http://en.wikipedia.org/wiki/XSLT)
* [Graphing](http://en.wikipedia.org/wiki/Graph_(software)) and [reporting](http://en.wikipedia.org/wiki/Enterprise_reporting)
* Simplified file manipulation including [raster graphics](http://en.wikipedia.org/wiki/Raster_graphics) (and [CAPTCHA](http://en.wikipedia.org/wiki/CAPTCHA)) and [zip archives](http://en.wikipedia.org/wiki/ZIP_(file_format)) (introduction of video manipulation is planned in a future release)

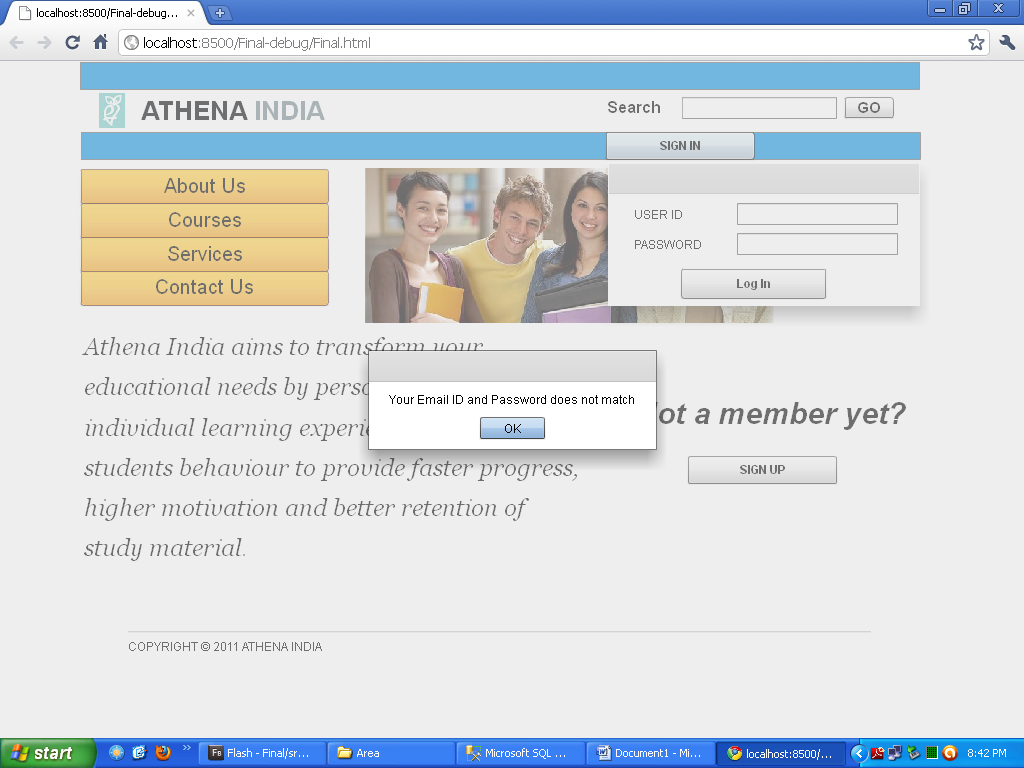
Cold fusion components (CFC):

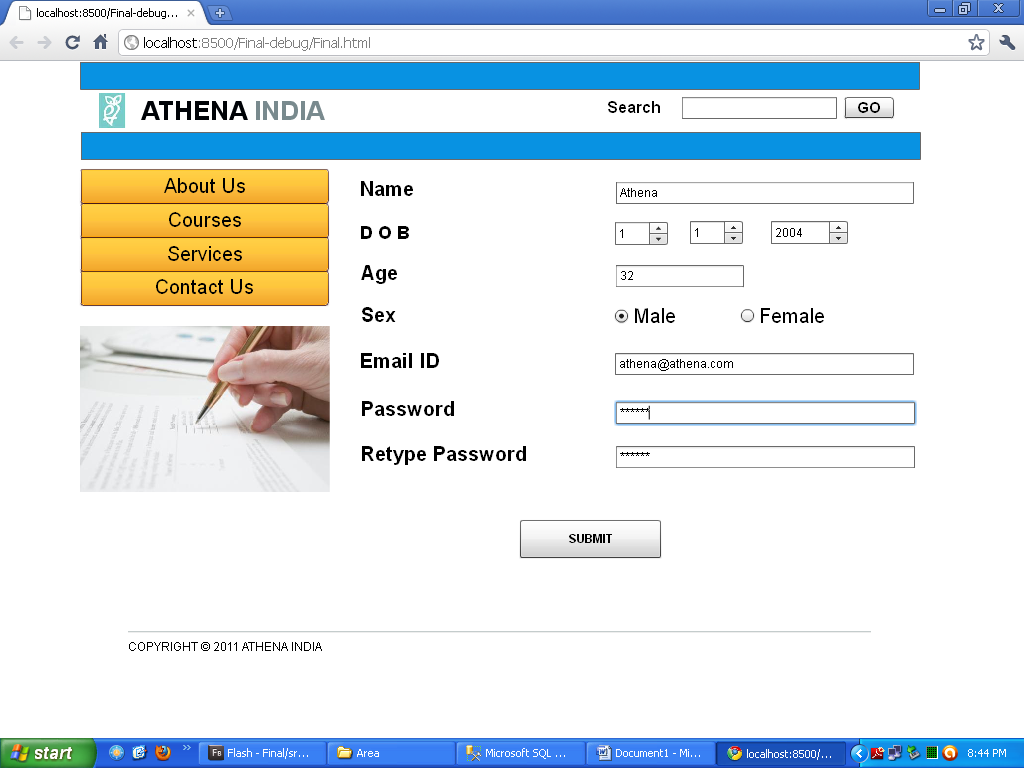
CFCs provide some (not all) of the typical features and functionality that are provided by [object-oriented](http://en.wikipedia.org/wiki/Object-oriented) (OOP) languages. [13]

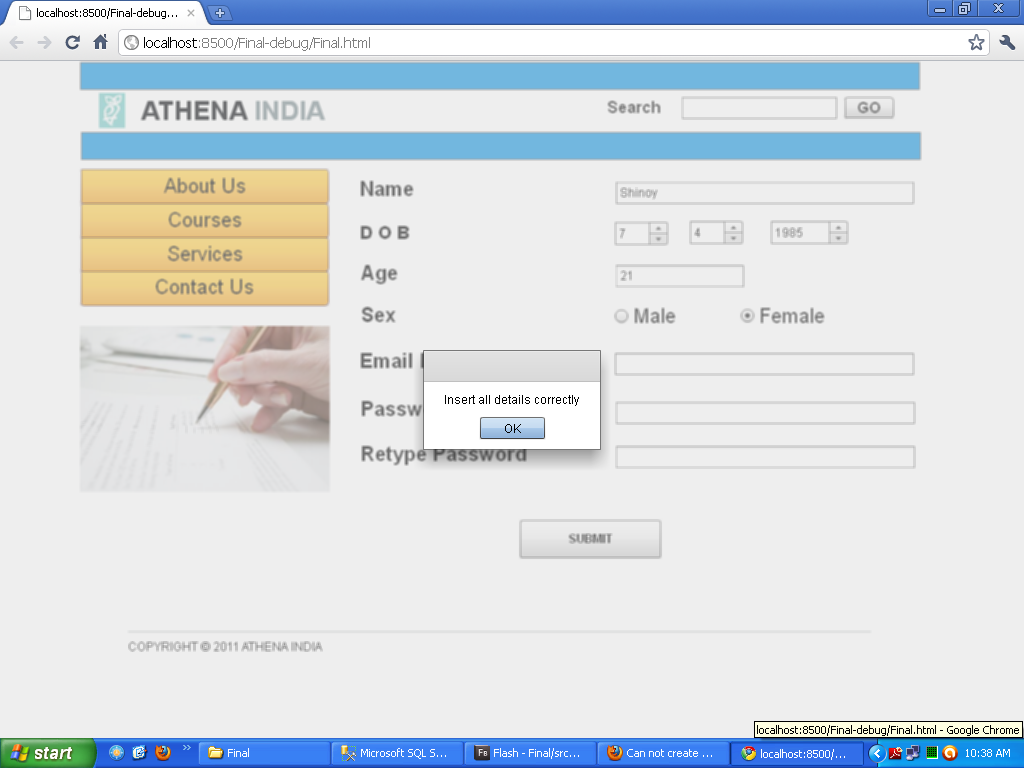
**CHAPTER NO. (IX)**

1. **Test Cases**

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**CHAPTER NO. (X)**

1. **Project Time Line**







Fig:9.4 Time Line Chart

**CHAPTER NO. (XI)**

1. **Work Breakdown Structure**

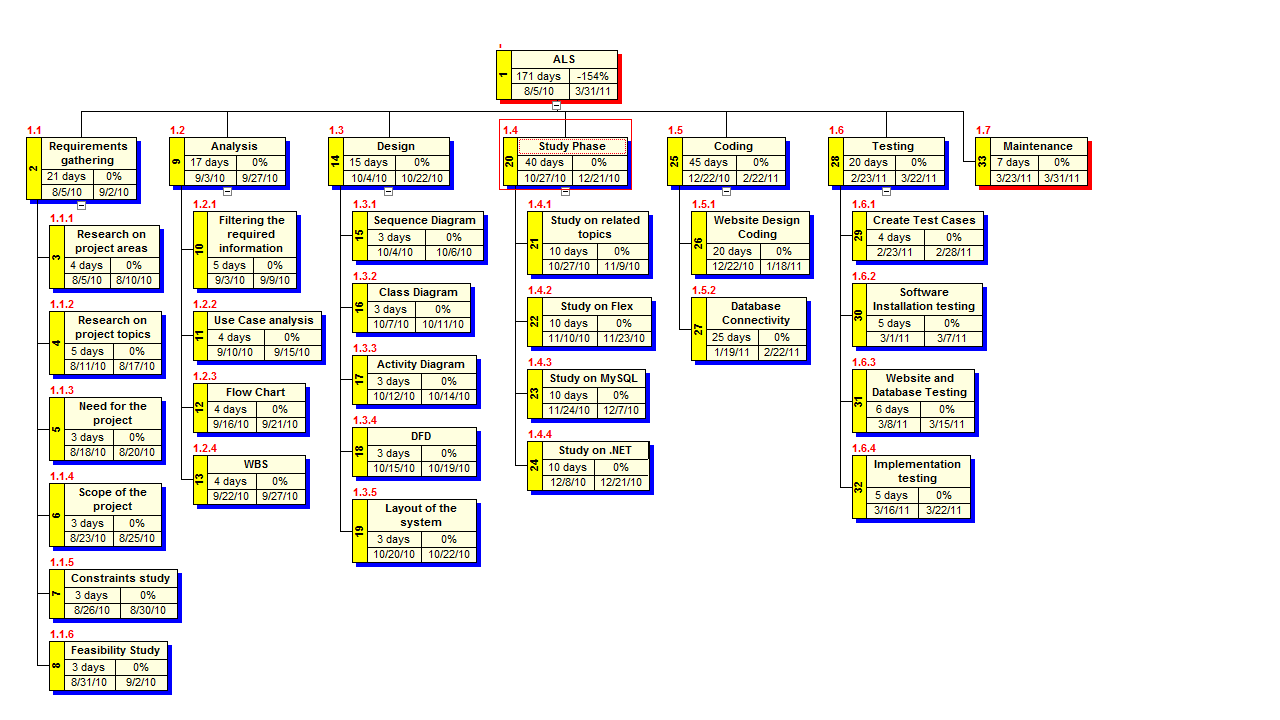
****

Fig:9.5 WBS Chart

**CHAPTER NO. (XII)**

1. **Conclusions and Future Work**

Conclusion:

It has been a pleasure to work for this project, from learning to work as a team all through to achieving our goal and now up to the proposed system.

The proposed system is set to an exclusive student centric learning wherein the users can choose how to learn all by themselves. This interactive system now has the ability to customize educational content to meet the needs of each student. The Adaptive Learning System tailors the learning materials to student’s exact needs and learning styles. The learner’s are thus benefited with faster progress, higher motivation and better retention of study materials. Thus the Adaptive Learning System helps any student learn more effectively with truly differential learning.

Future Work.:

The Adaptive Learning System currently deals with textual based learning and activity based learning. Moreover, in future, once implemented it can be materialized for a longer and effective vision. It is beyond the horizon of present knowledge as to how much more this Adaptive Learning System can do.

* This system can probably track facial response.
* The system has been set p as a stepping stone to tracing eye movement with various gestures and eye tracking algorithms.
* He student’s profile an be easily determined by linking the user’s name with various social networking websites like Facebook and Twitter. This is especially important to track he user’s likes and dislikes so that learning can be presented according to his profile.
* The ALS can dynamically match lessons, text or even video lectures in future to each user’s ideal learning. Thus the ALS can soon power the educational content to help anyone more effectively.

**CHAPTER NO. (XIII)**

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**CHAPTER NO. (XIV)**

1. **Appendix**

AI Artificial Intelligence.

ALS Adaptive Learning System.

CAT Computer Adaptive Test

IRT Item Response Theory

Decentralized The process of dispersing decision making closer to the people

Elucidated

Hypermedia The use of graphics, audio, video, plain text and [hyperlinks](http://www.answers.com/topic/hyperlink) intertwine to create a generally non-linear medium of information.

Pedagogy Study of being a teacher or the process of teaching.

Paradigm An example or pattern, distinct concept.

Pervasive Extensive, spread throughout