

# Project Specifications

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## **Academics Management System**

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### 1. Abstract

Abacus International School is a famous school in Chennai. We need to develop software titled Academics Management System to facilitate the operations carried out by the school. The main objective of Academics Management System is to computerize the operations such as maintaining student records, teacher records, Exam details such as class time table and exam results, attendance management etc. Also the Academics Management System provides better interaction between teachers, parents & management. This system aims to manage the academic records and facilitate the report generation for teachers.

### 2. High Level Design Specification

The project contains the following main modules.

- Classes
- Attendance
- Schedules
- Admin
- Search

- **Classes Module**

All the details such as student name, the class they are studying for the academic year, class teacher for a student etc., can be entered when an academic year started and updated whenever modification is needed. But the records cannot be deleted.

The examination result can be entered once the results are published. The assignments given to students and their status can also be entered with the 'Classes' module. This 'Classes' module provides options to maintain records about students and their academic performance.

- **Attendance Module**

The attendance details such as marking present and absent can be accomplished through options under 'Attendance' module. The attendance history of a class or a student can also be seen date wise.

Marking present or absent for each period handled, is the responsibility of the teacher. Finally the collating all the periods' attendance and marking the attendance for the day can be done by the class in-charge.

- **Schedules Module**

User can enter a time table for a class; holidays list etc., and modify the data through 'Schedules' menu. The time table for a class can be entered or modified by the class teacher. The list of holidays

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is displayed in the home page and entered by the admin when the academic year begins. Announcements, circulars, news and events can be navigated within the 'Schedules' module.

- **Admin Module**

The details about a particular class such as section, number of students, class in-charge can be viewed by the admin. Teacher details are entered and updated by admin user through this 'Admin' module.

- **Search Module**

This module is used to search the information available in the application. Both registered and non registered users can perform this search.

### 3. Mandatory Requirements

- **User-defined exceptions must be generated.**

The following are the sample scenarios where user-defined exceptions required. Identify the other mandatory requirements and implement them.

- a. Entering Invalid user id
- b. Entering Invalid user name and password etc.

- **Primary Key and foreign key constraints must be specified in database design.**

- **Session management must be implemented.**

Session tracking or management must be properly maintained between the pages until the user log outs the session.

### 4. Best Practices

The development team must follow the best practices.

#### 1. Coding Standard

- Methods and class names must be meaningful
- Meaningful names for variables
- Meaningful names for controls. To clearly identify the controls, the controls name can start with the control name followed by their functionality name.

#### Sample

TxtCustomerName – text field which is used to enter the customer name

BtSubmit – button to submit the fields' entry

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### 2. Validation for all the fields

- Missing of mandatory fields entry
- Entering numbers for names filed etc.

Identify the other required validation and implement them

### 3. Layout design and arrangement of the control must be proper in UI design

### 4. Title Messages for each dialog and screen must be meaningful

### 5. Deliverables Expected

- Project Documentation Report
- Database script file
- UI design document

### 6. Database Design

A partial database schema is given below. Additional tables or attributes may be added as per requirement. These database tables are samples only.

#### STUDENTS\_DETAILS

Field	Description
Student_Id	Student Id
Student_Name	Student Name
DOB	Date of Birth
Gender	Gender
Address	Student Address

#### TEACHER\_DETAILS

Field	Description
Teacher_Id	Teacher Id
Teacher_Name	Teacher Name
Subject_Handle	List of subjects handling
DOB	Date of Birth
Gender	Gender
Address	Student Address

**CLASS\_DETAILS**

Field	Description
Class	Class
Section	Section of the class
Year	Academic Year
Teacher_Id	Class Teacher
Student_Id	Student Id

**EXAM\_DETAILS**

Field	Description
Exam_Id	Examination id
Exam_Name	Name of the examination
Year	Academic Year

**EXAMINATION\_RESULT**

Field	Description
Student_Id	Student Id
Class	Class
Section	Section of the class
Exam_Id	Examination id
Language	Marks scored in Language
English	Marks scored in English
Mathematics	Marks scored in Mathematics
Science	Marks scored in Science
SocialScience	Marks scored in Social Science
ComputerScience	Marks scored in Computer Science

**TRACK\_ASSIGNMENT**

Field	Description
Stu_Id	Class
Assignment_Id	Day of the week
Date_Submitted	Period number
Marks	Subject

**ASSIGNMENT**

Field	Description
Assignment_Id	Id for assignment
Assignment_Title	Title for assignment
Subject	Subject
Total_Marks	Total marks for the assignment
Last_Date	Last date to submit the assignment

## 7. Screen Design

### Login

### User Login

UserName

Password

[Forgot Password?](#)
[New User?](#)
[Quick Registration](#)

### Attendance Marking

Add Attendance		
Please Select Class		<input type="button" value="X"/> <input type="button" value="A"/>
		Class In-charge: Ms. Niranjana
S.No	Name of the Student	Attendance_Status
1	A. Akshaya	✓
2	C. Basheera	✗ Applied Leave
3	S. Catherine	✓
4	F. Daniel	✓

### Assignments

#### Assignments

Title

Category

Subject

Date Assigned

Submission Date



## Announcements

**Add Notice**

**Title**

**Description**

**Notice for** ☒ Whole School ☐ Class

**Submit**

## Time Table

Time Table							
Day / Period	I	II	III	LUNCH	IV	V	VI
Mon	English	Maths	Language		Science	Maths	Social Science
Tue	Maths	Science	Computer Science		Language	Social Science	Physical Education
Wed	Computer Science	Maths	Language		Social Science	Science	English
Thu	Science	Maths	English		Social Science	Language	Computer Science
Fri	Maths	Science	Social Science		Computer Science	Language	Physical Education

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### List of Holidays

List of Holidays for the year 2010 - 2011			
S.No	Day	Date	Day
1	Independence Day	15.08.2010	Sunday
2	Ramzan	01.09.2010	Friday
3	Ganesh Chathurthi	11.09.2010	Saturday
4	Gandhi Jayanthi	02.10.2010	Saturday
5	Ayutha Pooja	16.10.2010	Saturday
6	Vijaya Dasami	17.10.2010	Sunday
7	Diwali	05.11.2010	Friday
8	Bakrid	17.11.2010	Wednesday
9	Muharram	17.12.2010	Friday
10	Christmas	25.12.2.10	Saturday
11	Uzhavar Thirunal	17.01.2011	Monday
12	Republic Day	26.01.2011	Wednesday
13	Telugu New Year's Day	04.04.2011	Monday
14	Dr.B.R.Ambedkar Birthday	14.04.2011	Thursday
15	Good Friday	22.04.2011	Friday

### View Attendance Class wise

View Class Attendance													
Please Select Class : <input type="text" value="X A"/> ▼													
S.No	Name	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	A. Akshaya	89%	95%	100%	90%	98%	100%	98%	92%	-	-	-	-
2	C. Basheera	72%	90%	95%	83%	90%	95%	85%	89%	-	-	-	-
3	S. Catherine	100%	88%	97%	89%	90%	88%	94%	88%	-	-	-	-
4	F. Daniel	90%	91%	98%	100%	88%	95%	83%	88%	-	-	-	-