



PROJECT REPORT

ON

"E-schooling"

Submitted for the partial fulfillment of the award of the degree of B.Tech in Information technology

Submitted by:

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ABSTRACT

Project Title - E-SCHOOLING

Category - use of online database

OBJECTIVE

The project e-school aims to create a database for all the government schools in Odisha taking into account their entire details including (establishment year , no of staffs , facilities provided by the government to the students , the use of funds and many other necessary details) so that all the details can be stored in the database, therefore creating a pathway for any person to take a review of any school as per requirement. E-school will create less chances of data loss and the process of fraud can also be reduced to some extent.

It will help in

1. Establishment of better interface between school and government.
2. Reducing the corruption taking places in schools.
3. Making the staff (both teaching and non-teaching) transfer system transparent and efficient.
4. Upgrading the mode of data storage.

INTRODUCTION TO THE PROJECT

To create a database for all the government schools in Odisha taking into account their entire details including (**establishment year , no of staffs , facilities provided by the government to the students , the use of funds and many other necessary details**) so that all the details can be stored in the database. Therefore creating a pathway for any person to take a review of any school as per requirement. Which will create a less chances of data loss and the process of fraud can also be reduced to some extent.

SYSTEM SPECIFICATION

H/W SPECIFICATION

1. RAM : 256MB and above
2. Harddisk : 20 GB
3. CPU : Pentium - I and above

S/W SPECIFICATION

- | | | |
|------------------|---|--------------|
| Front End | : | JDK - 1.7 |
| Back End | : | Oracle 10g |
| Operating System | : | Windows XP |
| Language | : | Java |
| Design Tools | : | NetBeans 7.1 |

ORACLE - (OBJECT ORIENTED RELATIONAL DATABASE MANAGEMENT SYSTEM)

JAVA

Java is a programming language in the tradition of C and C++. As a result, if you have any experience with C or C++, you'll find yourself in familiar territory often as you learn the various features of Java.

However, Java differs from other programming languages in a couple of significant ways. The following sections describe the most important differences.

PLATFORM INDEPENDENCE

One of the main reasons Java is so popular is its *platform independence*, which means that Java programs can be run on many different types of computers. A Java program runs on any computer with a *Java Runtime Environment*, also known as a *JRE*, installed. A JRE is available for almost every type of computer — PCs running Windows, Macintosh computers, Unix or Linux computers, huge mainframe computers, and even cell phones.

OBJECT ORIENTATION

Java is inherently *object-oriented*, which means that Java programs are made up of programming elements called *objects*. Simply put, an object is a programming entity that represents either some real-world object or an abstract concept.

All objects have two basic characteristics:

- Objects have data, also known as *state*. For example, an object that represents a book has data such as the book's title, author, and publisher.
- Objects also have *behavior*, which means that they can perform certain tasks. In Java, these tasks are called *methods*. For example, an object that represents a car might have methods such as start, stop, drive, or crash. Some methods simply allow you to access the object's data. For example, a book object might have a **getTitle** method that tells you the book's title.

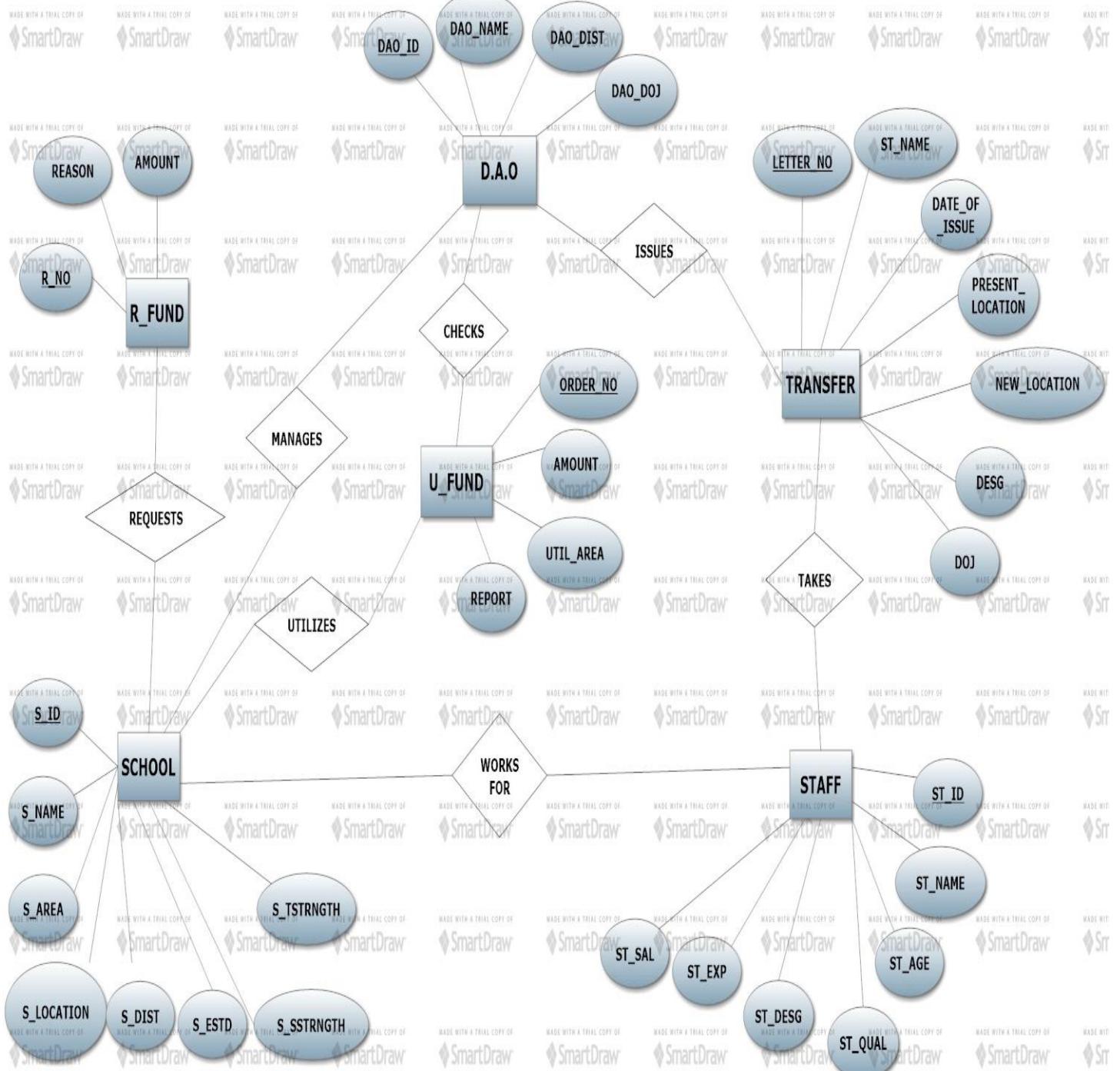
Classes are closely related to objects. A class is the program code you write to create objects. The class describes the data and methods that define the object's state and behavior. Then, when the program executes, classes are used to create objects.

For example, suppose you're writing a payroll program. This program needs objects to represent the company's employees. So, the program includes a class (probably named **Employee**) that defines the data and methods for each **Employee** object. Then, when your program runs, it uses this class to create an object for each of your company's employees.

THE JAVA API

The Java language itself is very simple. However, Java comes with a library of classes that provide commonly used utility functions that most Java programs can't do without. This class library, called the *Java API*, is as much a part of Java as the language itself. In fact, the real challenge of learning how to use Java isn't learning the language; it's learning the API. The Java language has only 50 keywords, but the Java API has several *thousand* classes — with tens of thousands of methods you can use in your programs.

ER-DIAGRAM



All the tables used in our project are normalized till 3rd normal form.

TABLE STRUCTURE

1. School info - due to larger size of table , I have cut it into fit for two pages.

The screenshot shows the Oracle Database Express Edition Object Browser interface. The left sidebar lists various tables: ALLOT_FUND, COUNTRIES, DAO, DEPARTMENTS, EMPLOYEES, FUND_REQUEST, FUND_UTIL, JOBS, LOCATIONS, REGIONS, SCHOOL_INFO (which is selected and highlighted in green), STAFF, and TRANSFER. The main panel displays the structure of the SCHOOL_INFO table. The table has 18 columns:

Column Name	Data Type	Nullable	Default	Primary Key
SCH_ID	NUMBER	Yes	-	-
NAME	VARCHAR2(40)	Yes	-	-
AREA	VARCHAR2(40)	Yes	-	-
LOCATION	VARCHAR2(40)	Yes	-	-
DISTRICT	VARCHAR2(40)	Yes	-	-
STUD1	NUMBER	Yes	-	-
STUD2	NUMBER	Yes	-	-
STUD3	NUMBER	Yes	-	-
STUD4	NUMBER	Yes	-	-
STUD5	NUMBER	Yes	-	-
STUD6	NUMBER	Yes	-	-
STUD7	NUMBER	Yes	-	-
STUD8	NUMBER	Yes	-	-
STUD9	NUMBER	Yes	-	-
STUD10	NUMBER	Yes	-	-
T_MATH	NUMBER	Yes	-	-
T_PHYSICS	NUMBER	Yes	-	-
T_CHEMIS	NUMBER	Yes	-	-
T_BIO	NUMBER	Yes	-	-
T_HIST	NUMBER	Yes	-	-

At the bottom of the browser window, there are status messages: "Language: en-us", "Application Express 2.1.0.00.39", and "Copyright © 1999, 2008, Oracle. All rights reserved.". The system tray at the bottom of the screen shows icons for various applications like Task Manager, File Explorer, and Control Panel.

School_info Part-1

Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NORP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables

ALLOT_FUND
COUNTRIES
DAO
DEPARTMENTS
EMPLOYEES
FUND_REQUEST
FUND_UTIL
JOBS
LOCATIONS
REGIONS
SCHOOL_INFO
STAFF
TRANSFER

SCHOOL_INFO

Create

T_MATH	NUMBER	Yes	-	-	
T_PHYSICS	NUMBER	Yes	-	-	
T_CHEMIS	NUMBER	Yes	-	-	
T_BIO	NUMBER	Yes	-	-	
T_HIST	NUMBER	Yes	-	-	
T_GEOG	NUMBER	Yes	-	-	
T_CIVICS	NUMBER	Yes	-	-	
T_ENG	NUMBER	Yes	-	-	
T_HINDI	NUMBER	Yes	-	-	
T_SANSKRIT	NUMBER	Yes	-	-	
T_COMP	NUMBER	Yes	-	-	
LAB_PHY	NUMBER	Yes	-	-	
LAB_CHEM	NUMBER	Yes	-	-	
LAB_BIO	NUMBER	Yes	-	-	
LAB_COMP	NUMBER	Yes	-	-	
LIB_BOOK	NUMBER	Yes	-	-	
PLAYGROUND_NUMBER	NUMBER	Yes	-	-	
SPORT_EQUIP1	NUMBER	Yes	-	-	
SPORT_EQUIP2	NUMBER	Yes	-	-	
SPORT_EQUIP3	NUMBER	Yes	-	-	
SPORT_EQUIP4	NUMBER	Yes	-	-	

1 - 36

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Language: en-us

EN 12:54 PM 30-Oct-14

School_info Part-2

2. Staff

Object Browser x

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables ▾

ALLOT_FUND
COUNTRIES
DAO
DEPARTMENTS
EMPLOYEES
FUND_REQUEST
FUND_UTIL
JOBS
LOCATIONS
REGIONS
SCHOOL_INFO
STAFF
TRANSFER

STAFF

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
EMPID	VARCHAR2(20)	Yes	-	-
FNAME	VARCHAR2(40)	Yes	-	-
SIRNAME	VARCHAR2(40)	Yes	-	-
DOB	VARCHAR2(20)	Yes	-	-
QUALIFICATION	VARCHAR2(80)	Yes	-	-
DESIGNATION	VARCHAR2(40)	Yes	-	-
EPERIENCE	VARCHAR2(80)	Yes	-	-
SALARY	NUMBER	Yes	-	-

1 - 8

EN 12:55 PM 30-Oct-14

Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User HR

Home > Object Browser

Tables

DAO

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
DAO_ID	VARCHAR2(20)	Yes	-	-
FNAME	VARCHAR2(40)	Yes	-	-
SIRNAME	VARCHAR2(40)	Yes	-	-
DISTRICT	VARCHAR2(40)	Yes	-	-
DOJ	VARCHAR2(20)	Yes	-	-

1 - 5

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Language: en-us

EN 12:55 PM 30-Oct-14



dao

Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables ▾

ALLOT_FUND
COUNTRIES
DAO
DEPARTMENTS
EMPLOYEES
FUND_REQUEST
FUND_UTIL
JOBS
LOCATIONS
REGIONS
SCHOOL_INFO
STAFF
TRANSFER

TRANSFER

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
LETTER_NO	NUMBER	Yes	-	-
EMP_ID	VARCHAR2(20)	Yes	-	-
DATE_ISSUE	VARCHAR2(20)	Yes	-	-
PRESENT_LOC	VARCHAR2(40)	Yes	-	-
PAST_LOC	VARCHAR2(40)	Yes	-	-
NEW_DESIGN	VARCHAR2(20)	Yes	-	-
DOJ	VARCHAR2(20)	Yes	-	-

1 - 7

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EN 12:55 PM
30-Oct-14

transfer

Object Browser X

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables ▾

ALLOT_FUND
COUNTRIES
DAO
DEPARTMENTS
EMPLOYEES
FUND_REQUEST
FUND_UTIL
JOBS
LOCATIONS
REGIONS
SCHOOL_INFO
STAFF
TRANSFER

FUND_REQUEST

Create ▾

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
LETTER_NO	NUMBER	Yes	-	-
SCH_ID	VARCHAR2(20)	Yes	-	-
AMOUNT	NUMBER	Yes	-	-
HEAD	VARCHAR2(40)	Yes	-	-
REASON	VARCHAR2(80)	Yes	-	-

1 - 5

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EN 12:56 PM 30-Oct-14

Fund_request

Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables

FUND_UTIL

Create

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
SCH_ID	VARCHAR2(20)	Yes	-	-
DATA	VARCHAR2(40)	Yes	-	-
AMOUNT	NUMBER	Yes	-	-
REASON	VARCHAR2(80)	Yes	-	-
AREA_UTIL	VARCHAR2(80)	Yes	-	-

1 - 5

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Fund_utilisation

Object Browser x

127.0.0.1:8080/apex/f?p=4500:1001:2557613738955395::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables ▾

ALLOT_FUND

COUNTRIES

DAO

DEPARTMENTS

EMPLOYEES

FUND_REQUEST

FUND_UTIL

JOBs

LOCATIONS

REGIONS

SCHOOL_INFO

STAFF

TRANSFER

ALLOT_FUND

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
ORDER_NO	NUMBER	Yes	-	-
SCH_ID	VARCHAR2(20)	Yes	-	-
AMOUNT	NUMBER	Yes	-	-
HEAD	VARCHAR2(40)	Yes	-	-

1 - 4

Application Express 2.1.0.0.39

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Language: en-us

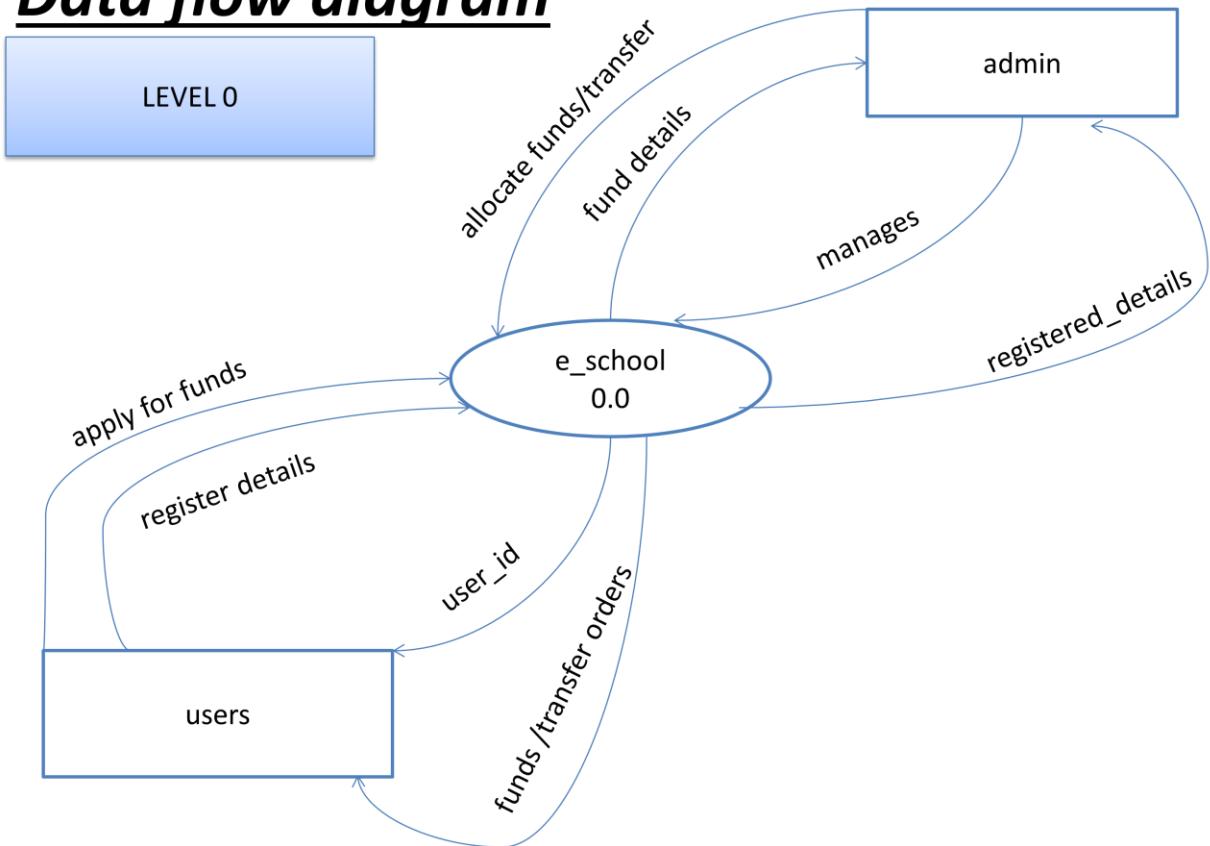
EN 12:57 PM 30-Oct-14

Allot_fund

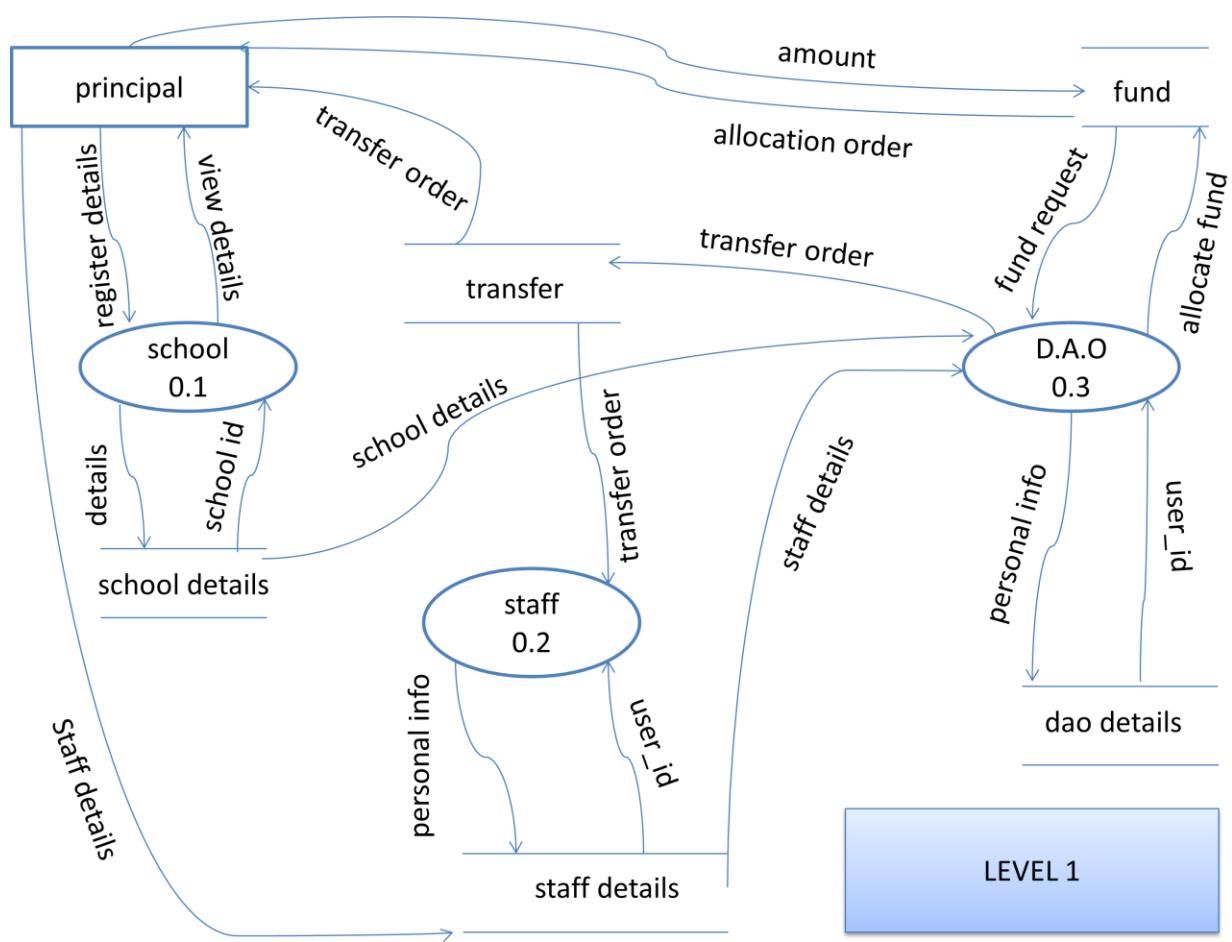
DATA FLOW DIAGRAM

CONTEXT LEVEL

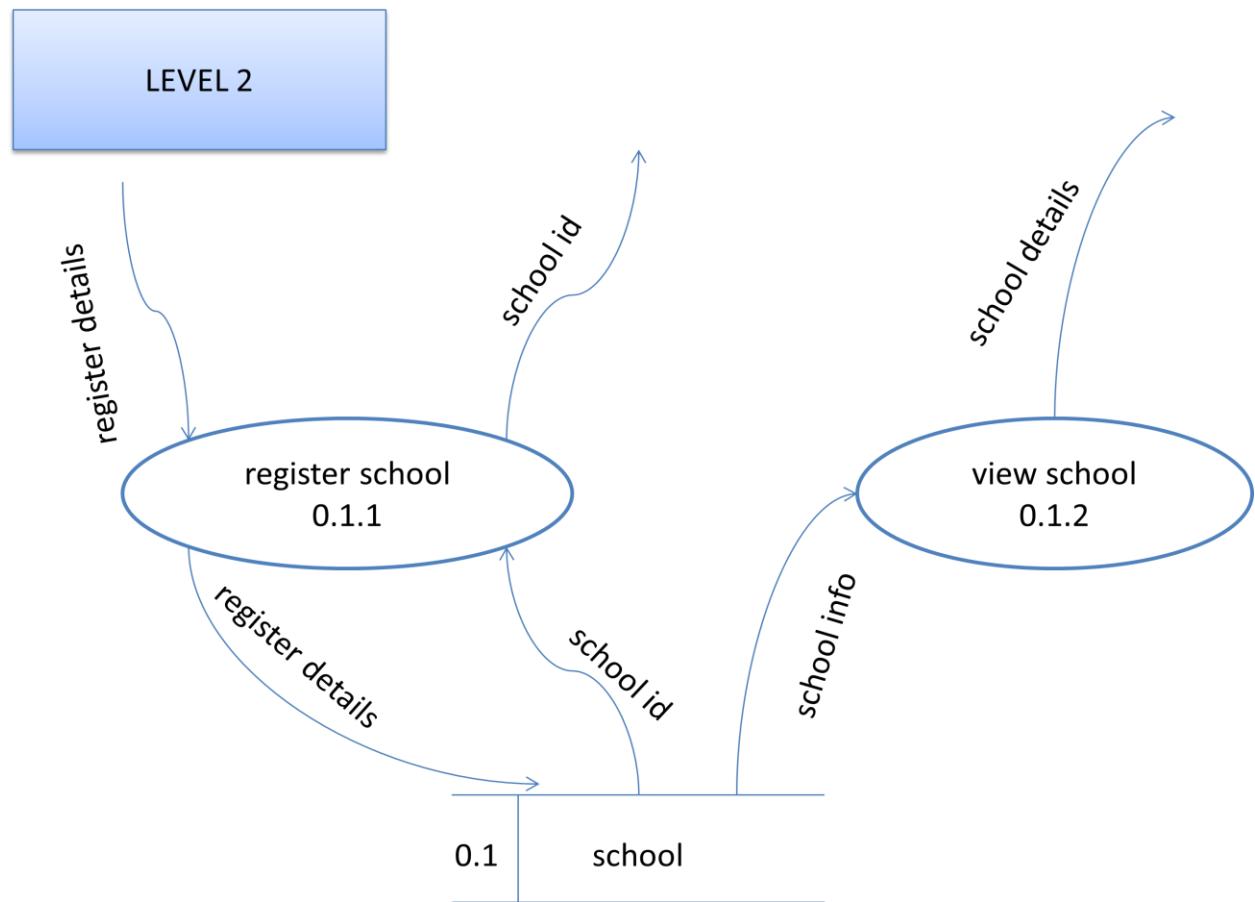
Data flow diagram



DFD LEVEL - 1



DFD - LEVEL - II



FORMS

1. School information –

it do have information of school , student strength , staff strength , labrotary , playground and stuff related ...

Opera Untitled Document Untitled Document

Local localhost/C:/Users/kunal/Documents/dreamweav/school%20info.jsp Search with Google

SCHOOL INFORMATION

School Name :

School id :

Area :

Location :

District :

Student Strength :

I	II	III	IV	V
<input type="text"/>				
VI	VII	VIII	IX	X
<input type="text"/>				

Teacher Strength :

Total :

Staff strength

Math	Physics	Chemistry	Biology	History	Geography
<input type="text"/>					
Civics	English	Hindi	Sanskrit	Computer	
<input type="text"/>					

Number of lab: physics chemistry biology computer

Library yes no number of books :

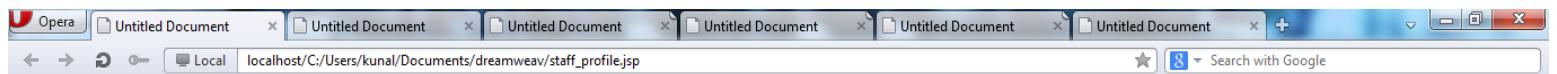
Playground

sports equipment

Downloading... EN 1:34 PM 30-Oct-14



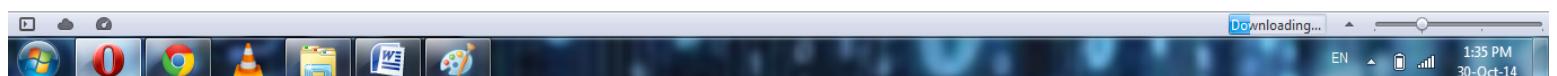
2. staff profile – it do have basic information of staff in the school.



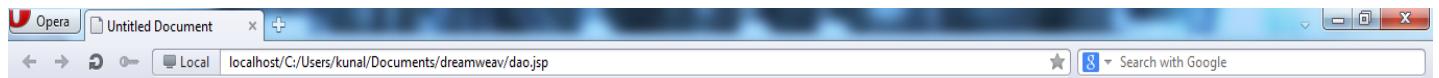
STAFF PROFILE

ADD/UPDATE STAFF PROFILE

EMPID	<input type="text"/>
EMP NAME	<input type="text"/>
first name	<input type="text"/>
sirname	<input type="text"/>
dob	<input type="text"/>
qualification	<input type="text"/>
designation	<input type="text"/>
experience	<input type="text"/>
SALARY	<input type="text"/>
<input type="button" value="update"/>	



3 .district administrative officer - it have first information about administrators.



4 . transfer – it do have information of transfers of employee

Screenshot of a web browser window showing a form titled "TRANSFER TEACHER". The form contains fields for letter number, employee ID, date of issue, present location, past location, on post, and date of journey, each with a corresponding input field. A "transfer" button is at the bottom.

Opera Untitled Document Untitled Document + Local localhost/C:/Users/kunal/Documents/dreamweav/transfer.jsp Search with Google

TRANSFER TEACHER

letter no.	<input type="text"/>
emp id	<input type="text"/>
Date of issue	<input type="text"/>
present location	<input type="text"/>
past location	<input type="text"/>
on post	<input type="text"/>
date of journey	<input type="text"/>
<input type="button" value="transfer"/>	

Windows taskbar: Downloading... EN 1:36 PM 30-Oct-14

5 . fund request – it have data of funding by others.

Screenshot of a web browser window showing a "FUND REQUEST" form.

The browser title bar shows "Untitled Document" and the URL "localhost/C:/Users/kunal/Documents/dreamweav/fund_request.jsp".

The page content is titled "FUND REQUEST" in a large, bold, dark blue font.

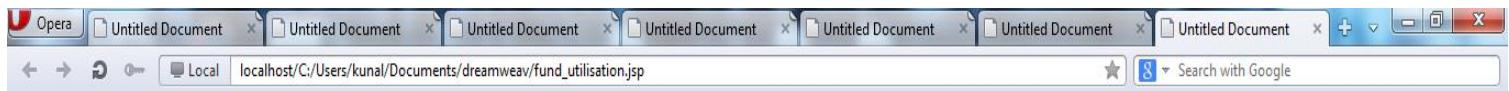
The form fields are as follows:

- letter no. (text input field)
- school id (text input field)
- amount (text input field)
- head (text input field)
- reason (text input field)
- transfer (button)

The entire form area is highlighted with a yellow background.

The taskbar at the bottom shows various application icons and the system clock "1:39 PM 30-Oct-14".

6 . fund utilization – it shows how fund contributed are used and have reasons.

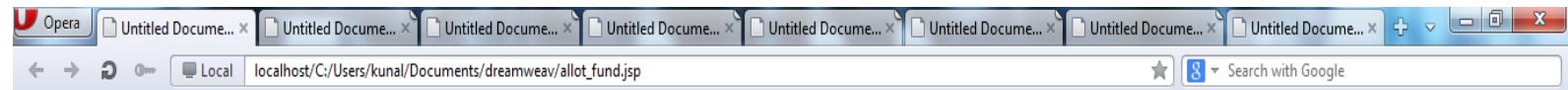


FUND UTILISATION

school id	<input type="text"/>
data	<input type="text"/>
amount	<input type="text"/>
reason	<input type="text"/>
area	<input type="text"/>
utilisation	<input type="text"/>
<input type="button" value="transfer"/>	



7. fund allocation – it have detail of how fund allocated to different schools

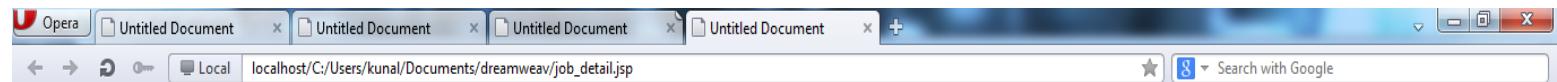


ALLOT FUND

order no	<input type="text"/>
school id	<input type="text"/>
amount	<input type="text"/>
head	<input type="text"/>
<input type="button" value="allocate"/>	



8. job detail – it is for employee who are transferred. It do update the employee data automatically.



JOB DETAIL

emp id	<input type="text"/>
sch id	<input type="text"/>
past location	<input type="text"/>
present location	<input type="text"/>
on post	<input type="text"/>
subject	<input type="text"/>
<input type="button" value="update"/>	



CONCLUSION

- Thus we can say that when this project is implemented in india we will have a better government schooling system.
- Students will be provided with the best facilities given by the school.
- Allocations of old and new teachers will be easier, faster and regular.

