INFANT INFORMANT

A PROJECT REPORT

Submitted By

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In fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

In

Information Technology

Silver Oak College of Engineering & Technology
Opp. Bhagwat Vidhyapith, Near Gota Cross Road, Ahmedabad-382481

Gujarat Technological University, Ahmedabad

April, 2019

Candidate's Declaration

I hereby declare that project report titled "**INFANT INFORMANT**" submitted towards the completion of project in 8th semester of bachelor of Information Technology in Silver Oak College Of Engineering & Technology, Ahmedabad is an authenticate record of our work carried out.

I further declare that to the best of my knowledge the report of I.T. 8th semester.

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2018-19

CERTIFICATE

Date:

This is to certify that the Project Work entitled "INFANT INFORMANT" has been carried out by HARSH RAJESHKUMAR PATEL (150770116043) under my guidance in fulfilment of the degree of Bachelor of Engineering in Information Technology (8th Semester) of Gujarat Technological University, Ahmedabad during the academic year 2018-19.

Prof. Nilesh Solanki	**Prof. Jaimin Dave**
Internal Guide	Head - Information Technology
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Yours Sincerely,

Harsh Rajeshkumar Patel (150770116043)

ABSTRACT

Education plays vital role in our life and currently quality of our education is not ample to satisfy our basic requirements. There are lots of students which face difficulties in basic concepts study which they learnt during their infant school education. To make infant education more efficient and accurate this project will become helpful. The main aim behind this project is to connect faculties with parents so when children face any kind of issue in study then parents can easily contact to faculties and get instant solution by using this project. This project also provide various features which will become helpful to take surveillance on our infant education. Use of technology can make this kind of work easier and much convenient rather than any other ways. Hence, implementation of this project make our education system more clear and powerful for our society.

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CHAPTER: 1

INTRODUCTION

CHAPTER 1 INTRODUCTION

1.1 Project Summary

- This project is related to the infant education. There are lots of problems in education of infant and that kind of problem can be solved by using this project.

- Augmenting education quality when student is in child phase can make them brilliant. Thus it is mandatory to make high quality education in infant school because it plays vital role in future generation.

- In this project there are mainly three persons which interact by communication among each other. Parents, Faculties and Principal.

1.2 Purpose:

- It's more convenient for people to use technology for communication instead of scheduling specific meet for communication thus, by using this project we can save precious time and money of parents and faculties.

- Education plays vital role in our life and this project is able to make education system more reliable and also it can also provide feasible solution to critical problems which occur on daily basis.

1.3 Scope:

The scopes are mention below:

- **Infant school:** Infant schools can use this application to maintain their management system and also parents can monitor progress of their child.

1.4 Technology and Literature Review:

- The front end used in our project is JQuery, HTML, JavaScript, css, JSP and the back end used is MySql.
- Tools used are Sql Visio, eclipse Luna.
- We will follow the Iterative model for developing this Project and whole Project will be developed using the SDLC scenario.

HTML

- HTML an initialize of Hyper Text Markup Language for web pages.

- It provides a means to describe the structure of text based information in document by denoting text as headings, paragraphs, lists and so on and to supplement that text with interactive forms, embedded images and other objects.

JavaScript

- JavaScript supports the development of both client and server components of web based applications.
- On the client side, it can be used to write programs that are executed by a web browser within the context of the web page.
- On the server side, it can be used to write web server programs that can be process information submitted by a web browser and then update the web browser display accordingly.

Advantages:

- It can be used for server side and client side scripting.
- It is more flexible then JavaScript.

Java technology:

- Initially, the language was called as “oak”. But it was renamed as “java” in 1995.
- The primary motivation of this language was the need for a platform independent language that could be used to create software to be embedded in various consumer electronic devices.
- Java is cohesive and consistent technology.

Benefit of the java collection framework:

- Java collection framework provide the following benefits:
- Reduce programming effort
- Increase program speed and quality.

Servlets:

- Servlets provide a component-based, platform-independent method for building Web-based applications, without the performance limitations of CGI programs.
- Servlets have access to the entire **family** of Java APIs, including the JDBC API to access enterprise databases.
- Using Servlets, you can collect input from users through web page forms, present records from a database or another source, and create web pages dynamically.
- Java Servlets often serve the same purpose as programs implemented using the Common Gateway **Interface** (CGI). But Servlets offer several advantages in comparison with the CGI.

Features of servlet

- Performance is significantly better.
- Servlets execute within the address space of a Web server. It is not necessary to create a separate process to handle each client request.
- Servlets are platform-independent because they are written in Java.
- Java security manager on the server enforces a set of restrictions to protect the resources on a server machine. So servlets are trusted.
- The full functionality of the Java class libraries is available to a servlet. It can communicate with applets, **databases**, or other software via the sockets and RMI mechanisms that you have seen already.

Advantages:

- They use a standards API.
- One of the main advantages of servlet is protocol independence.

SQL:

- **SQL** (**Structured Query Language**) is a special-purpose programming language designed for managing data held in a relational database management system (RDBMS).
- Originally based upon relational algebra and tuple relational calculus, SQL consists of a data definition language and a data manipulation language.
- The scope of SQL includes data insert, query, update and delete, schema creation and modification, and data **access control**. Although SQL is often described as, and to a great extent is, a declarative language (4GL), it also includes procedural elements.
- **Data Definition**: Defining tales and structure in the database.
- **Data manipulation:** Used to manipulate the data within those schema objects.

JSP (Java Server Pages):

- JSP is a simple, yet powerful technology for creating and maintaining dynamic content web pages.
- Based on the java programming language, java server pages offers proven portability, open standards, and maturely usable component model.

Android:

- This is an operating system based on the Linux kernel.
- It was designed primarily for touch screen mobile devices, such as smart phones and tablet computers, with variants for television, cars and wrist wear. One of the most widely used mobile OS these days is ANDROID. Android is a software bunch comprising not only operating system but also middleware and key applications.

CHAPTER: 2

SOFTWARE PROJECT MANAGEMENT

CHAPTER 2 SOFTWARE PROJECT MANAGEMENT

2.1 Project planning and scheduling

2.1.1 Project Development Approach

The activities we followed for this project is listed below:

- Planning the work or objectives: In this phase the application development objective/aim of the project is discussed and work according to objective is done. This phase should be done carefully as it set the future of the project.
- Analysis & Design of objectives: In this phase the objectives that were set is taken into design consideration. Here the analysis of the project is done and works on designing the objective is carried out.
- Allocation of resources: This phase manages the available resources. Here manpower are divided according to the workload. The project is schedule and works are allocated as per requirement.
- Organizing the work: The total workload is organized in this phase, so that all work is allocated properly.
- Database Designing: In this phase the heart of system is designed i.e database. Here all the data are stored, analyzed, processed and execute to provide the meaningful result.

The Process Paradigm we used for our project is Waterfall Model.

- **Waterfall Model**

- Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.

[Figure 2.1 Waterfall Model]

The sequential phases in Waterfall model are

- **Requirement Gathering and analysis** − All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- **System Design** – the requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** − with inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** − All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment

Waterfall Model - Application

Every software developed is different and requires a suitable SDLC approach to be followed based on the internal and external factors. Some situations where the use of Waterfall model is most appropriate are −

- Requirements are very well documented, clear and fixed.
- Product definition is stable.
- Technology is understood and is not dynamic.
- There are no ambiguous requirements.
- Ample resources with required expertise are available to support the product.
- The project is short.

2.1.2 Project Plan

- Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment.
- Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure.
- Project planning is often used to organize different areas of a project, including project plans, workloads and the management of teams and individuals.

	From Date	**To Date**
1.Preliminary Investigation	2/7/2018	4/8/2018
2.Requirment Analysis	5/8/2018	15/9/2018
3.Designing	22/9/2018	28/10/2018
4.Implementation	5/1/2019	16/3/2019
5.Testing	17/3/2019	15/4/2019

[Table 2. 1 Project Plan]

[Figure 2.2 Pie Chart]

2.1.3 Scheduling

- Project Scheduling is the culmination of a planning activity that is primary component of software project management.
- When combined with estimation methods and risk analysis, scheduling, establishes a road map for the project management.
- Scheduling begins with the process composition. The characteristics of the project are used to adapt an appropriate task set for the work to be done.
- The task network is used to compute the critical project path, a time line chart and a variety of project information.

2.2 Risk Management

- All projects have risks. If a potential risk of the project is not identified early, then the project will be at a high risk to complete as per schedule, within budget and to meet the expected quality. One of the current difficulties faced by a new Project Manager today is not having a sample or general risk list to refer to when identifying the project risk.

2.2.1 **Risk Identification**

- Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project. The

- Objectives of project risk management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project.
- Project Risk identification is the most important process in the Risk Management Planning. Risk Identification determines which risks might affect the project and documents their characteristics. However, as recommended by [Donna Ritter], we should not spend too much time in identifying risks. After the list is made, qualitative and quantitative analysis is done to figure out which risks you spend time and/or money on.

2.2.2 Risk Analysis

- Risk Analysis is a process that helps you identify and manage potential problems that could undermine key business initiatives or projects.

- Risk Analysis can be complex, as you'll need to draw on detailed information such as project plans, financial data, security protocols, marketing forecasts, and other relevant information. However, it's an essential planning tool, and one that could save time, money, and reputations.

2.2.3 Risk Planning

- Together these 5 risk management process steps combine to deliver a simple and effective risk management process.

  Step 1: Identify the Risk. ...

  Step 2: Analyze the risk. ...

  Step 3: Evaluate or Rank the Risk. ...

  Step 4: Treat the Risk. ...

  Step 5: Monitor and Review the risk.

  - It also contains a risk assessment matrix. A risk is "an uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives." Risk is inherent with any project, and project managers should assess risks continually and develop plans to address them.

2.3 Estimation

2.3.1 Effort Estimation and Cost Estimation

- Determine how accurate your estimate needs to be. Typically, the more accurate the estimate, the more detail is needed, and the more time that is needed. If you are asked for a rough order of magnitude (ROM) estimate (-25% - +75%), you might be able to complete the work quickly, at a high-level, and with a minimum amount of detail.
- Create the initial estimate of effort hours for each activity and for the entire project. There are many techniques you can use to estimate effort including task decomposition (Work Breakdown Structure), expert opinion, analogy, Pert, etc.
- Add specialist resource hours. Make sure you include hours for part-time and specialty resources. For instance, this could include freelance people, training specialists, procurement, legal, administrative, etc.
- Consider rework (optional). In a perfect world, all project deliverables would be correct the first time. On real projects, that usually is not the case. Work plans that do not consider rework can easily end up underestimating the total effort involved with completing deliverables.
- Add project management time. This is the effort required to successfully and proactively manage a project. In general, add 15% of the effort hours for project management. For instance, if a project estimate is 12,000 hours (7 - 8 people), a full-time project manager (1,800 hours) is needed. If the project estimate is 1,000 hours, the project management time would be 150 hours.
- Add contingency hours. Contingency is used to reflect the uncertainty or risk associated with the estimate. If you're asked to estimate work that is not well defined, you may add 50%, 75%, or more to reflect the uncertainty. If you have done this project many times before, perhaps your contingency would be very small — perhaps 5%.
- Calculate the total effort by adding up all the detailed work components.
- Review and adjust as necessary. Sometimes when you add up all the components, the estimate seems obviously high or low. If your estimate doesn't look right, go back and adjust your estimating assumptions to better reflect reality.

2.3.2 Cost Analysis

- Like all estimation models for software, the COCOMO models require sizing information.
- Three different sizing options are available as part of the model hierarchy: object points, function points, and lines of source code.
- Like function points, the object point is indirect software that is computed using counts of the number of

(1) Screens (at the user interface),
(2) Reports,
(3) Components likely to be required to build the application.

- Once complexity is determined, the number of screens, reports, and components are weighted according to Table above.
- The object point count is then determined by multiplying the original number of object instances by the weighting factor in table above and summing to obtain a total object point count.
- When component based development or general software reuse is to be applied, the percent of reuse (%reuse) is estimated and the object point count is adjusted:
- **NOP = (object points) X [(100 - %reuse) / 100].**
- Where NOP is defined as new object points. To derive an estimate of effort based on the computed NOP value, a "productivity rate" must be derived.
- **PROD=NOP / person-month**
- For different levels of developer experience and development environment maturity. Once the productivity rate has been determined, an estimate of project effort can be derived as Estimated effort = NOP/PROD.

In My Project,

Modules	**Page**	**Estimated line of code**
Admin	**-**	**4100**
	Login	100
	Mange Faculties details	4000
Faculty	**-**	**4350**
	Login	100
	Update Attendance	500
	Update Homework	500
	Update Leaves	900
	Update Queries	300
	Update Student Details	300
Parents		**3650**
	Login	200
	Update Leaves	900
	View Details	150
	Send Requests	250

[Table 2. 2 Cost Estimation]

Advantages of COCOMO:

- COCOMO is factual and easy to interpret.
- One can clearly understand how it works.
- Accounts for various factors that affect cost of the project

Disadvantages:

- COCOMO model ignores requirements and all documentation.
- It ignores **customer skills**, cooperation, knowledge and other parameters.
- It oversimplifies the impact of safety/security aspects.
- It ignores hardware issues
- It ignores personnel turnover levels.

CHAPTER 3

SYSTEM REQUIREMENT STUDY

CHAPTER 3 SYSTEM REQUIREMENT STUDY

3.1 User Characteristics:

- It describes the type of user which deals with the applications. Basically, this application has three types of users as given below:
    1. Principal(Admin)
    2. Faculties
    3. Parents

1. Principal(Admin):

- Responsibility of administrator is to manage the application database and update the data in database when faculties will change.

2. Faculties:

- Responsibility of faculties is to complete tasks which are assigned to them by school and manage details according to each student in database.

3. Parents:

- Once the portal being tasted and being uploaded then parents (or end user) will use this application. User in the main reason for which this application is being built. The end user can easily interact with the faculties using this portal.

3.2 Hardware and Software Characteristics:

Hardware Requirements:

- Minimum 2.27Ghz processor
- RAM: 2GB minimum

Software Requirements:

- Java compatible system

Hardware requirement for Java Application Development

- Minimum 2.0 GHz processor
- Minimum 2GB of RAM
- 100GB free space in Hard Disk storage

Software requirement for Java Application Development

- Eclipse editor
- My SQL Database
- JDK 1.7
- JDBC connectivity

3.3 Constraints:

3.3.1Regulatory Policies:

- Regulatory Policies or mandates, limit the discretion of individual and agencies, or otherwise compel certain types of behavior.
- These policies are generally thought to be best applied when good behavior can be easily defined and bad behavior can be easily regulated and punished through fine and sanctions.

3.3.2 Hardware Limitation

- The smooth functionality of the portal mainly depends on the speed of hardware and then on speed of the internet.
- It is always advisable to be update as far as hardware is concerned. The hardware limitation occurs if the user is still using a very low MHz processor or a RAM or less than 128Mb.
- This will generally reduce the portal and also the use will waste a lot of useful time, energy and resources.

CHAPTER 4

SYSTEM ANALYSIS

CHAPTER 4 SYSTEM ANALYSIS

4.1Study of Current System

- This kind of portal is not available at present time and some portal are similar but they didn't able to provide many feature.

4.2 Problem in Existing Systems

- This type of portal is not available in market. We are developing our portal on this creative concept.

4.3 Requirement of New System:

4.3.1 Functional Requirement:

- User who uses this portal should know how to operate the android. Because the application has the same look and features like whole software is menu driven.

Identification of functional requirement:

- The high level functional requirement often needs to be identified from an informal problem description document or from a conceptual understanding of the problem.
- Each high level requirement characterizes away of system usage by some users to perform some meaningful piece of work.

Documentation of functional requirement:

- For documenting the functional requirement I need to specify the set of functionalities supported by the system.

- A function can be identified the state at which the data to input to the system, its input data domain, the output data domain, and the type of possessing to be carried out on the input data to obtain the output data.

4.3.2 Non-functional requirement:

Usability:

- The interface should use terms and concepts, which are drawn from the experience of people who will make most of the system.

Efficiency:

- The portal must provide easy and fast access without consuming more cost.

Readability:

- User should never be surprised by the behavior of the system and it should also provide meaningful feedback when error occurs so that user can recover from the error.

Accuracy:

- The user should require that data are obtained from database and stored in database must be accurate.

Security:

- The user wants the data stored in database must be secured and cannot be accessed by unauthorized user.

Maintainability:

- User wants that the system should be maintained easily means that if there are some changes required in the system that can be done easily.

4.4 Feasibility Study

- Feasibility is the measure of how beneficial the development of information system will be to an organization.
- The feasibility analysis is categorized under four different types.
    1. Operational Feasibility
    2. Technical Feasibility

3. Schedule Feasibility
4. Economic Feasibility

1. Operational Feasibility:

- The System is to be developed for any user who wants to use it. We want our system user friendly and easy to use.
- The administrator also may be non-technical, so the user interface will be designed in such a way that it gets comfortable for non-technical person to operate easily.

2. Technical Feasibility:

- It is a partially measurement of specific technical solution and the availability of technical resorts and expertise.
- The analyst must find out whether the current technical resources, which are available in the system is capable of handling the job.
- If not, then the analyst with the help of developer should confirm whether the technology is available and capable or not.

Better Considering:

- Here we have to consider those tools which are required for developing the project.
- As far as basic knowledge concerned we have studied basic of objective-C and SQL.

3. Schedule Feasibility:

- Schedule feasibility corresponds to whether sufficient time is available to complete the project.

Factor considered:

- Schedule of the project
- Time by which project has to be completed
- Reporting period

4. Economic feasibility:

- Economic feasibility is a measure of cost effectiveness of a project or solution.
- For declaring that the system is economically feasible, the benefits from the project should exceed or at least to the equal to the cost of development.

4.5 Requirement Validation:

- Requirement validation examines this specification to ensure that all the system requirements have been stated unambiguously.
- These inconsistent, error have been detected and corrected and the work products confirmed to the standard.
- Source of the requirement are identified, final Statement of requirement has been examined by original source.

4.6 Function of the System:

4.6.1 Use-Case:

- In software and systems engineering, a **use case** is a list of steps, typically defining interactions between actor and a system, to achieve a goal.
- The actor can be a human, an external system, or time.
- In systems engineering, use cases are used at a higher level than within software engineering, often representing missions or stakeholder goals.
- The detailed requirements may then be captured in Systems Modeling Language or as contractual statements.
- As an important requirement technique, use cases have been widely used in modern software engineering over the last two decade.

[Figure 4.1 Use-Case]

4.7 Data Modelling:

4.7.1 Class Diagram/E-R Diagram:

- In software engineering, an **entity–relationship model** (**ER model**) is a data model for describing the data or information aspects of a business domain or its process requirements, in an abstract way that lends itself to ultimately being implemented in a database such as a relational database.
- The main components of ER models are entities and the relationships that can exist among them, and databases.
- An entity-relationship model is a systematic way of describing and defining a business process.
- The process is modelled as components (entities) that are linked with each other by relationships that express the dependencies and requirements between them, such as: one building may be divided into zero or more apartments, but one apartment can only be located in one building. Entities may have various properties (attributes) that characterize them.
- Diagrams created to represent these entities, attributes, and relationships graphically are called entity–relationship diagrams.

[Figure 4.2 E-R Diagram]

- ## Class Diagram:

- In software engineering, a **class diagram** in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.
- The class diagram is the main building block of object oriented modeling.
- It is used both for general conceptual modeling of the systematic of the application, and for detailed modeling translating the models into programming code.
- Class diagrams can also be used for data modeling.
- The classes in a class diagram represent both the main objects, interactions in the application and the classes to be programmed.
- In the diagram, classes are represented with boxes which contain three parts:
- The top part contains the name of the class. It is printed in Bold, centered and the first letter capitalized.
- The middle part contains the attributes of the class. They are left aligned and the first letter is lower case.
- The bottom part gives the methods or operations the class can take or undertake. They are also left aligned and the first letter is lower case.

[Figure 4.3 Class Diagram]

4.7.2 Activity Diagram:

Admin

[Figure 4.4 Activity Diagram –Principal]

Faculties

[Figure 4.5 Activity Diagram-Faculties]

Parents

[Figure 4.6 Activity Diagram Parents]

4.8 Functional & Behavioural Modeling

4.8.1 Sequence Diagram:

- The well-known Message Sequence Chart technique has been incorporated into the Unified Modeling Language (UML) diagram under the name of **Sequence Diagram**.
- A sequence diagram shows, as parallel vertical lines, different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur.
- This allows the specification of simple runtime scenarios in a graphical manner.
- The well-known Message Sequence Chart technique has been incorporated into the Unified Modeling Language (UML) diagram under the name of **Sequence Diagram**. A sequence diagram shows, as parallel vertical lines, different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner.

Principal

[Figure 4.7 Sequence Diagram –Principal]

Faculties

[Figure 4.8 Sequence Diagram –Faculties]

Parents

[Figure 4.9 Sequence Diagram –Parents]

4.9 Main Modules of New System

- The Infant Informant can be used to manage data of the students and it can be update by faculties and seen by parents.
- The main modules involved in this systems are:

1. **Login and contact us:**
   - Login module is used to check whether the user id authorized person or not.
   - For this user should give correct user name and password. The different types of user are: admin, faculties and parents.
2. **Admin access**
   - The admin access is given to the administration and administration can manage data of faculties and students and do many more tasks.
3. **Faculties**
   - Faculties can manage data of students which is available to view for parents.
4. **Parents**
   - Parents can see the data which is uploaded by the faculties and also they can manage many more things.

4.10 Selection of Hardware & Software and Justification:

4.10.1 Java is best open source programming language to develop web application for small and large enterprise with portable implementation.

4.10.2 MySQL is also best open source database engine to work.

4.10.3 Android language can provide application which is useable in lots of mobile

devices.

4.10.4 Combination of this technologies will give great web application and mobile application as an output.

CHAPTER 5

SYSTEM DESIGN

CHAPTER 5 SYSTEM DESIGN

Systems design is the process of defining the architecture, components, modules, interfaces and data for a system to satisfy specified requirements. The System Design Description report provides summary or detailed information about a system design represented by a model. Systems design is therefore the process of defining and developing systems to satisfy specified requirements of the user.

5.1 Data structure design:

5.1.1 Logical Description of Data

Database design is the process of producing a detailed data model of a database. This logical data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a Data Definition Language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	S_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More
2	S_GR-Number	int(5)			No	None		Change Drop Browse distinct values Primary Unique Index More
3	S_First_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
4	S_Middle_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
5	S_Last_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
6	S_Gender	varchar(6)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
7	S_Contact_Number	bigint(12)			No	None		Change Drop Browse distinct values Primary Unique Index More
8	Standard	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index More
9	S_Admission_Date	date			No	None		Change Drop Browse distinct values Primary Unique Index More
10	S_DATE_Of_Birth	date			No	None		Change Drop Browse distinct values Primary Unique Index More
11	S_Blood_Group	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
12	S_Address	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
13	F_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More

[Table 5.1 Student]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	F_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More
2	F_First_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
3	F_Middle_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
4	F_Last_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
5	F_Gender	varchar(6)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
6	F_Contact_Number	bigint(12)			No	None		Change Drop Browse distinct values Primary Unique Index More
7	F_Email	varchar(25)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
8	F_Joining_DATE	date			No	None		Change Drop Browse distinct values Primary Unique Index More
9	F_DATE_Of_Birth	date			No	None		Change Drop Browse distinct values Primary Unique Index More
10	F_Address	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
11	F_Password	varchar(25)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More

[Table 5.2 Faculty]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	P_id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More
2	P_First_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
3	P_Middle_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
4	P_Last_Name	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
5	P_Gender	varchar(6)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
6	P_Contact_Number	bigint(12)			No	None		Change Drop Browse distinct values Primary Unique Index More
7	P_Email	varchar(25)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
8	P_Address	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
9	P_password	varchar(20)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
10	S_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More

[Table 5.3 Parents]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	A_Id	int(11)			No	None	AUTO_INCREMENT	Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
2	Date	date			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
3	Time	time			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
4	Status	tinyint(1)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
5	S_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext

[Table 5.4 Attendance]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	E_Id	int(4)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
2	E_Date	date			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
3	E_Details	varchar(250)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
4	E_Time	time			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
5	Image1	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
6	Image2	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
7	Image3	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
8	fid	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext

[Table 5.5 Event]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	L_Id	int(4)			No	None		Change Drop Browse distinct values Primary Unique More
2	S_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique More
3	L_Reason	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique More
4	L_start_Date	date			No	None		Change Drop Browse distinct values Primary Unique More
5	L_end_Duration	date			No	None		Change Drop Browse distinct values Primary Unique More
6	L_Accepted_Or_Declined	tinyint(1)			No	None		Change Drop Browse distinct values Primary Unique More
7	A_r_reason	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique More

[Table 5.6 Leave]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	H_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
2	H_Date	date			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
3	H_Time	time			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
4	H_Description	varchar(250)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
5	Standard	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More

[Table 5.7 Homework]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	fid	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
2	famount	decimal(5,0)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
3	fdate	datetime			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
4	foption	varchar(30)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
5	c_no	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
6	grn	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
7	pid	varchar(3)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
8	std	varchar(10)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext

[Table 5.8 Fees]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	Q_Id	int(4)			No	None		Change Drop Browse distinct values Primary Unique Index More
2	Q_Description	varchar(250)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
3	Q_Date	date			No	None		Change Drop Browse distinct values Primary Unique Index More
4	Q_Time	time			No	None		Change Drop Browse distinct values Primary Unique Index More
5	Q_Response	varchar(250)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index More
6	Q_Response_Date	datetime			No	None		Change Drop Browse distinct values Primary Unique Index More
7	P_id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More
8	F_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index More

[Table 5.9 Query]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	T_Id	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
2	Standard	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
3	Month	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
4	Year	year(4)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
5	IMAGE_name	varchar(150)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial More
6	fid	int(2)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial More

[Table 5.10 Timetable]

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	R_Id	int(4)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
2	Exam	varchar(15)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
3	Maths	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
4	Grade	varchar(2)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
5	Gujarati	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
6	Garde	varchar(2)	latin1_swedish_ci		No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
7	Total	int(4)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext
8	S_Id	int(3)			No	None		Change Drop Browse distinct values Primary Unique Index Spatial Fulltext

[Table 5.11 Result]

5.2 System procedural design

5.2.1 Design Pseudo code or algorithm for method or operation

Admin side

Step 1: enter the URL to open the system

Step 2: provide name and password

Step 3: if name and password both is correct then it will login successfully.

Step 4: it shows home page

Step 5: admin can able to perform many operations.

Step 6: there is also one facility to change password.

Faculty side

Step 1: enter into the APPLICATION to open the system

Step 2: main page contains many features of the system.

Step 3: Faculty can perform various tasks.

Step 4: close the systems.

Parent's side

Step 1: enter into the APPLICATION to open the system

Step 2: main page contains many features of the system.

Step 3: Parents can perform various tasks.

Step 4: close the systems.

5.2.2 Flow Charts

Admin:

[Figure 5.1 Flow Chart –Admin]

Faculties

[Figure 5.2 Flow Chart-Faculties]

Parents:

[Figure 5.3 Flow Chart –Parents]

5.3 I/O & Interface Design

5.3.1 Sample of Interface

This is the sample layout of the user interface.

[Figure 5.4 Layout]

5.4 I/O & Interface Design

5.4.1 Sample of Forms, Reports & Interface

The login Page for Faculty and parents is look like this interface which is showed as under.

[Figure 5.5 Application interface]

[Figure 5.6 Dashboard interface]

5.4.2 Access control & Security

- Access control is a security technique that regulates who or what can view or use resources in a computing environment. It is a fundamental concept in security that minimizes risk to the business or organization.
- There are a one database which contains information regarding id's which are given to parents and faculty according to it all credentials are secured and only authenticated person knows about it thus it is secure.

5.4.3 State Chart Diagram

[Figure 5.7 state diagram]

5.5 System Architecture Design

[Figure 5.8 DFD]

CHAPTER 6

IMPLEMENTATION PLANNING AND DETAILS

CHAPTER 6 IMPLEMENTATION PLANNING AND DETAILS

6.1 IMPLEMENTATION ENVIROMENT

Implementation of my Project is based on Android (for Parents and Faculties) and HTML, CSS, JSP(for Admin panel).

6.1.1 Users

This System is obviously Multi User System As Multiple Parents can use our Application as well as Multiple Faculties can be use. User may feel this as Single User System while using but System but it is Multiuser System.

6.1.2 GUI

In the era of 2019 User Interface and User Experience is strongest point of any System. And we can proudly say that we have made this system according to UI/UX methodologies. System feels very simple and smooth to the users.

6.2 PROGRAM/MODULES SPECIFICATION

The System is divided into Three Roles.

- ✓ Admin
- ✓ Faculties
- ✓ Parents

- Admin:

  Web Portal is for admin it should be provided to the administration section of the school to maintain entire system properly.

  Modules of admin can be classified as follows.

  - Add/update details of student section
  - Add/update details of faculty section
  - Add/update/remove details of event section
  - update/remove details of timetables section
  - Add/update details of fees
  - Add/update details of result

- Faculties:

  Faculties will react to the actions of parents such as query and leave.

  Modules of Faculties can be classified as follows.

  - Login
  - Homework
  - Attendance
  - Leaves
  - Query
  - Logout

- Parents:

  Parents will get data which was uploaded by the admin and faculties.

  Modules of Parents can be classified as follows.

  - Login
  - Profile
  - Homework
  - Attendance
  - Leaves
  - Fees
  - Events
  - Timetable
  - Result
  - Query
  - Logout

6.3 Security Features

SQL injection

A data driven application is always vulnerable to SQL injection attack, since it's quite older type of attack there are several ways to avoid such attacks.

Escaping all user-supplied input

We will validate each input which will ensure us that no one is manipulating our inputs for SQL injection procedure.

Prepared Statements

Prepared statements are type of SQL queries and they require parameters for their execution this ensures that there will be no leak or prediction of our column names or user defined data. Using PDO with strong typed parameterized queries we will be able to avoid such occasions.

Cross-site scripting

Cross-site scripting or XSS is simple type of attack but can damage or hijack whole website, in this attack, attacker uses user input for html code which can damage the website.

This can easily be avoided by ensuring that user is not entering arbitrary HTML code into user input fields by validation that should be done in PHP and not users easily manipulate JavaScript as JavaScript.

Cross-site request forgery

CSRF can happen if you don't ensure a link someone clicks in their browser originated from your website (they can authenticate on your website, get a cookie indicating they're authenticated, open a new tab, and be tricked into clicking a link on another website in the other tab that points to your website and causes some action to happen there).

To avoid such attacks, we ensure that they have no tabs on us and we have timely session created that destroys themselves in half an hour of inactive user

6.4 Coding Standards

I tried my best to follow the professional coding standards.

Name	Standard
Files	Case: Small Separated By: _(Underscore)
Class	Case: Camel Separated By: None
PHP Variables	Case: Small Separated By: _(Underscore)
Folders	Case: Small Separated By: _(Underscore)
Session Variables	Case: Small Separated By: _(Underscore)
JavaScript Variables	Case: Camel Separated By: None
Functions	Case: Camel Separated By: None

[Table 6.1 Coding Standards]

6.5 Sample Coding

[Figure 6.1 Code Sample Android XML]

[Figure 6.2 Code Sample Android Java]

[Figure 6.3 Code Sample JSP]

[Figure 6.4 Code Sample PHP]

CHAPTER 7 TESTING

CHAPTER 7 TESTING

Testing is mandatory part of any project for its proper working and desired output that it was designed for and therefore, I have done every bit to make sure this will not happen in our case.

7.1 TESTING PLAN

Since, project size is not big I think there is no requirement of exhaustive testing of modules hence, we have tested most of the modules at the time of coding using debugging methods and watches. Some small functions were tested with logging techniques and we confirmed the working after being assured of the outputs.

7.2 TESTING STRATEGY

In Alpha Testing I was able to perform various types of testing like,

- Module Testing

  Module testing was carried out to check each functionality of the users that were dependent on roles and basic features of users.

- Integration Testing

  Many of functionality was same in terms of coding and therefore, I needed to check if they were integrated properly or not. Also, there were more than two technologies together and their integration with each other was also, important.

- Validation Testing

  I tested if the desired output was gained at the end of each module completion to ensure validity of the program.

7.3 TESTING METHODS

I do not have audience and therefore, beta testing method is not possible. Only white box testing method is left for me to perform. I do not have any automation experience and therefore, each test case was manually tested by me and examples of some cases are given in

Test Cases.

7.4 TEST CASES

In software engineering, the most common definition of a test case is set of conditions or variables under which a tester will determine if a requirement or use case upon an application is partially or fully satisfied. In that situation each sub requirement must have at least one test case.

	A	B	C	D	E	F	G	H
1	TEST CASE ID	TEST CASE DESCRIPTION	TEST STEPS	PRECONDITION	TEST DATA	EXPECTED DATA	POST CONDITION	ACTUAL RESULT
2	T_INFANT _INFORMANT_ 001	Login	Enter GR number and password	Application must have internet connection	GR Number : 180101 Password :	MainActivity should open	MainActivity should open	Main activity opend.
3	T_II_Faculty_0 01	Login	Enter ID number and password	Application must have internet connection	ID Number : 1 Password : admin	MainActivity should open	MainActivity should open	Main activity opend.
4	T_Admin_001	Login	Enter URL ENTER ID number and password	Computer must have internet connection	User Name : admin Password :	Home page of admin panel should open	Null	Home page opened.
5	T_INFANT _INFORMANT_ 002	Login	Enter wrong GR number and/or password	Application must have internet connection	GR Number : 18011 Password : admn	MainActivity should not open	MainActivity should not open	Log in failed
6	T_II_Faculty_0 02	Login	Enter wrong ID number and/or password	Application must have internet connection	ID Number : 17 Password : adin	MainActivity should not open	MainActivity should not open	Log in failed
7	T_Admin_002	Login	Enter URL ENTER wrong ID number and/or password	Computer must have internet connection	User Name : adin Password :	Home page of admin panel should open	Null	Invalid user id and password alert appeared

[Table 7.1 Login Test case]

CHAPTER 8

SCREENSHOTS AND USER MANUAL

CHAPTER 8 Screenshots and User Manual

- **INFANT INFORMANT APPLICATION**

[Figure 8.1 Splash Screen]

[Figure 8.2 Login Screen]

[Figure 8.3 Home Screen]

[Figure 8.4 Profile Screen]

[Figure 8.5 Homework Screen]

[Figure 8.6 Attendance Screen]

[Figure 8.7 Leaves Screen]

[Figure 8.8 Fees Screen]

[Figure 8.9 Event Screen]

[Figure 8.10 Result Screen]

[Figure 8.11 Query Screen]

[Figure 8.12 Timetable Screen]

- **II FACULTY APPLICATION**

[Figure 8.13 Faculty Home Screen] [Figure 8.14 Faculty Query Screen]

[Figure 8.15 Faculty Homework Screen]

[Figure 8.16 Faculty Attendance Screen]

[Figure 8.17 Faculty Leave Screen]

- **Admin**

[Figure 8.18 Faculty Section for Admin]

[Figure 8.19 Student Section for Admin]

[Figure 8.20 Event Section for Admin]

[Figure 8.21 Timetable Section for Admin]

CHAPTER 9

LIMITATION AND FUTURE ENHANCEMEN

CHAPTER 9 Limitation and Future Enhancement

9.1 Limitation

- Due to security of the data student details could not delete.
- Once the data is submitted by faculty of parents it could not revert back.
- Admin portal need to be updated duly basis.
- Faculty can’t update attendance and homework details once the date is went.

9.2 Future Enhancement

- The Fast servers can provide great speed in application
- By use of firebase we can send notifications in nearest future.
- The Payment gateway could be implemented in application for online fees payment

CHAPTER 10

CONCLUSION

CHAPTER 10 Conclusion

This project can help school to maintain entire data of school in proper manner and also it will share data with parents and faculty which is essential for them. Faculty and Parents can use details of student and make appropriate decision for student. Which could help student in study life and use of this project could lead to the bright future of our students.

REFERANCES

Android: https://developer.android.com/

YouTube: https://www.youtube.com/

StackOverFlow: https://stackoverflow.com/

GitHub: https://github.com

APPENDIX

- **Periodic Progress Reports**

College	: SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY, AHMEDABAD		
StudentName	: Patel Harsh Rajeshkumar		
EnrollmentNo	: 150770116043	Department	: Information Technology
MobileNo	: 7096111590	Discipline	: BE
Email	: hp281268@gmail.com	Semester	: Semester 8

PPR 1

PPR Details

Periodic Progess Report : First PPR

Project : INFANT INFORMANT

Status : Reviewed

1. What Progress you have made in the Project ?

Flow of the entire project is ready to implement.

2. What challenge you have faced ?

Code plays vital role in my project and its difficult for me to code some modules.

3. What support you need ?

I dont want any support as everything is fine till today.

4. Which literature you have referred ?

Recently I just started to seek for information from https://developer.android.com/

Document : Download

Comments

Comment by Internal Guide :

done

Comment by External Guide :

None

Comment by HOD :

None

Comment by Principal :

None

Comment by University Admin :

None

PPR 2

PPR Details

Periodic Progess Report : Second PPR

Project : INFANT INFORMANT

Status : Reviewed

1. What Progress you have made in the Project ?

Some modules of the project are working properly and the database connection for the applications and web is established.

2. What challenge you have faced ?

My web hosting is free of cost so its very difficult to make changes in database and web services. And it took very long time to load activities of the applications. also it slow down my development.

3. What support you need ?

I want paid web hosting but i dont have ample amount of money to buy it.

4. Which literature you have referred ?

I am refering pdfs of tutorialspoint website.

Comments

Comment by Internal Guide :
done

Comment by External Guide :
None

Comment by HOD :
None

Comment by Principal :
None

Comment by University Admin :
None

PPR 3

PPR Details

Periodic Progess Report : Third PPR

Project : INFANT INFORMANT

Status : Reviewed

1. What Progress you have made in the Project ?

The last feature of my project is attendance which is very difficult to implement because there are lots of limitations in android which prevent me from developing.

2. What challenge you have faced ?

It is difficult to deal with calendar class in the android and i need to implement calendar feature in my project.

3. What support you need ?

I want support of my guide for learning calendar class of the android.

4. Which literature you have referred ?

I am still referring android developers of the google. Link : https://developer.android.com/

Document : Download

Comments

Comment by Internal Guide :

done

Comment by External Guide :

None

Comment by HOD :

None

Comment by Principal :

None

Comment by University Admin :

None

PPR 4

PPR Details

Periodic Progess Report : Forth PPR

Project : INFANT INFORMANT

Status : Reviewd

1. What Progress you have made in the Project ?

Implementation of project is done now the documentation phase is remained.

2. What challenge you have faced ?

Its very hard to centralize the database in free hosting because they are not providing apache and tomcate server for use.

3. What support you need ?

I want support for android notification implementation.

4. Which literature you have referred ?

Just recently started to use firebase service of google which has huge size documentation for android platform.

Document : Download

Comments

Comment by Internal Guide :

done

Comment by External Guide :

None

Comment by HOD :

None

Comment by Principal :

None

Comment by University Admin :

None

- **Design Engineering Canvases**

[Product Development Canvas]

[Ideation Canvas]

[Empathy Mapping Canvas]

[AEIOU Canvas]

- **Business Model Canvas**

[Business Model Canvas]

- **Patent Drafting Exercise**

Form 1:

College	:	SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY, AHMEDABAD
Department	:	Information Technology
Discipline	:	BE
Semester	:	Semester 8
Project Name	:	INFANT INFORMANT
Team ID	:	34291

Form 1 – APPLICATION FOR GRANT OF PATENT

Applicants :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
1	Patel Harsh Rajeshkumar	Indian	Information Technology , SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY, AHMEDABAD , Gujarat Technologycal University.	7096111590	hp281268@gmail.com

Inventors :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
1	Patel Harsh Rajeshkumar	Indian	Information Technology , SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY, AHMEDABAD , Gujarat Technologycal University.	7096111590	hp281268@gmail.com

I/We, the applicant(s) hereby declare(s) that:

Following are the attachments with the applications :

Form 2:

Form 2 - PROVISIONAL/COMPLETE SPECIFICATION

1 . Title of the project/invention :

INFANT INFORMANT

2. Preamble to the description :

Provisional

3. Description

a) Field of Project / Invention / Application :

This project would be helpful to all kind schools.

b) Prior Art / Background of the Project / Invention :

The project is relevant to the school management system. The project can make exist school management system more better, convenient and reliable. It will help school to maintain data of students. Parents have access to the data of his or her student. Faculties can update data of the student in easy manner.

c) Summary of the Project / Invention :

The intention behind invention of this project is to provide a portal on which schools can be dependent. Also it will help to maintain data in appropriate manner which could be helpful to parents , faculties and admin. Admin has access to the entire portal so it would be easy to maintain.

d) Objects of Project / Invention :

1) Easy to use
2) School can use this portal for data storing purpose
3) Simple GUI makes application more convenient
4) Faculties can upload details which will be readable to parents
5) Admin has access to the web portal in which he can add Student details, Faculty Details, Timetable, Result, Parents Details and Event Details.

e) Drawings :

f) Description of Project / Invention : (full detail of project) :

The INFANT INFORMANT project has 2 android application and 1 admin portal.
Application named INFANT INFORMANT is for Parents.
Application named II Faculty is for the faculties of the school.
Web Portal is for admin it should be provided to the administration section of the school to maintain entire system properly.
INFANT INFORMANT Application has 9 Feature.
1 Profile of Student 2 Homework 3 Attendance 4 Leaves 5 Fees 6 Events 7 Timetable 8 Result 9 Query
II Faculty Application has 5 Features.
1 Profile of Faculty 2 Homework 3 Attendance 4 Leaves 5 Query
Admin portal has Features
1 Student Section 2 Faculty Section 3 Timetable 4 Events

g) Examples :

h) Claims (Not required for Provisional Application) / Unique Features of Project

Faculty has own application which is easy to use rather than using website.
Faculty can update data frequently because there is no need of computer and also application is light weight so it will run on major android devices.
Application could work with low speed internet and it require less amount of data traffic.
School can use the portal for final data storing purpose instead of depending on excel sheets.

4. Claims

5. Date and signature

6. Abstract of the project / invention :

This project can help school to maintain entire data of school in proper manner and also it will share data with parents and faculty which is essential for them. Faculty and Parents can use details of student and make appropriate decision for student. which could help student in study life and use of this project could lead to the bright future of our students.

Form 3:

Form 3 – STATEMENT AND UNDERTAKING UNDER SECTION 8

Name of the applicant(s) :	I/We, Patel Harsh Rajeshkumar
	Hereby declare :
Name,Address and Nationality of the joint applicant :	(i) that I/We have not made any application for the same/substantially the same victim invention outside India.
	(ii) that the rights in the application(s) has/have been assigned to

Name of the Country	Date of Application	Application Number	Status of the Application	Date of Publication	Date of Grant
N/A	N/A	N/A	N/A	N/A	N/A

(iii)That I/We undertake that upto the date of grant of the patent by the Controller, I/We would keep him informed in writing the details regarding corresponding applications for patents filed outside India within three months from the date of filing of such application.

Dated this 12 day of April 2019

To be signed by the applicant or his authorised registered patent agent : Signature.....

Name of the Natural Person who has signed : Patel Harsh Rajeshkumar

To,
The Controller of Patents,
The Patent Office,
At Mumbai