**CONTENTS**

**1. INTRODUCTION…………………………………………………………… 7**

**1.1 Abstract………………………………………………………………………… 8**

**1.2 Objective and scope of the project………………………………………… 9**

**2. SYSTEM ENVIRONMENT………………………………………………**

**10**

**2.1. Hardware Requirement…………………………………………………… 11**

**2.2 Software Requirement……………………………………………………… 11**

**3. ANALYSIS ………………………………………………………………… 12**

**4. DESIGN…………………………………………………………………………….. 17**

**4.1. Data flow diagrams…………………………………………………………. 18**

**4.2. UML Diagrams……………………………………………………………… 22**

**4.3. Database Architechture & Design………………………………………. 34**

**4.4. Data Dictionary……………………………………………………………… 36**

**4.5. Screens……………………………………………………………………….. 40**

**5. TESTING…………………………………………………………………………… 52**

**5.1. Test Plan…………………………………………………………………… 53**

**5.2. Test Strategy……………………………………………………………… 53**

**5.3 Test Cases………………………………………………………………… 54**

**6. Conclusion………………………………………………………………………. 55**

**7. Bibliography………………………………………………………………………. 57**

6

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**1.INTRODUCTION**

7

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**1.1Abstract:**

This Web application provider is developed for an organization,

which deals with attending customer requirements. This site provides

online solutions for their customer’s. Once the customer is registered with

the organization, he can get services provided by the site with in the valid

period. The following modules support customers to keep track.

This project is aimed for providing the user to solve their IT

related problems online. The user has to register first with the company

then he/she can avail the services provided by the company. After

registration the user can post the problem and get the solution from the

company. The problem can be based on hardware, software, networking

and database i.e., all IT related problems. They can get the solution

depending on their priority. It is a contract between the user and the

company by paying some amount through Credit Cards only. After

completion of the contract the users has to reregister with the company

again and avail services of the company

8

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**1.2.Objective and scope of the project:**

**Objective for the Proposed system :**

\_

\_

\_

\_

To give quick access to information.

To decrease the communication gaps and increase the coordination.

To build a database of information regarding the transactions.

For decision making and strategy planning**.**

**Scope:**

\_Administrator is confined to looking at the database and updating the

website with various new services.

\_Customers can register themselves with the website for free and can avail the

features like online assistance for their problems.

\_It is the duty of the Administrator to Assign groups to the support persons

manually

\_It is the duty of the Support person to give the solutions to the problems of his

assigned group manually

\_Administrator can check for the validity of any claim and he deserves the

right to cancel any claim.

\_A user can post any number of problems for any number of

his/her dependants.

9

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

2. **SYSTEM ENVIRONMENT**

10

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**2.1.Hardware Requirement:**

Processor

HDD

RAM

:

:

:

Intel Pentium III or higher

80GB

1GB

**2.2.Software Requirements:**

Operating System :

Microsoft Windows XP

Or higher versions

Language

Web Technology

Database

Browser

Web Server

E-SOLUTION PROVIDER

:

:

:

:

:

11

Java, HTML

J2EE(Jdbc,JSP,XML)

Oracle10g

Mozilla Firefox

Tomcat 5.0

SCIENT INST.OF TECH

**3.Analysis**

12

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

This concept of E-solution provider is mainly developed for helping various

companies and the customers to serve in post sale or post purchase

transactions.It decreases the cost and improves the company-customer

relationship.

To overcome the disadvantages of the existing system we choosed

appropriate software and hardware.

**EXISTING SYSTEM:**

IT solution Provider is an organisation that deals with computer related problems.

It is involved in both the aspects of computers viz. hardware, software. Its main

concern is of solving the problems of customers either individuals or companies.

The current system followed in the organisation is as follows:

\_The customer has to register with the company before availing of their services.

The customer has to furnish all the personal details of himself / company. Then,

the company creates contract, which is valid for a period of 6 months. The

customer can avail services of the company once he is registered. The customer

can now post the problems or can get any software/ hardware delivered through

the company.

\_ The customer if having a problem has to contact the company after which he is

sent to the concerned support person. He has to narrate all the details related to

his problem. After narrating his problem, he either is given a solution immediately

or is put on a wait list based on the complexity of the problem. If he is put on a

wait list, he has to contact the company (or let the company call him back.) to find

out whether problem is solved or not.

\_ The

maintenance of the customer details is done through the paper work.

\_ The company has to keep track of the work being assigned to each of its

employee and the work being done is to be analysed, records are maintained for

the progress of their work. The sub-manager is the person who is responsible for

assigning the problems, adding the employees and looking after the payrolls.

\_ The

super-manager is person who adds new services of the company, he also

adds new products and the new groups for the various departments. He is the

person who approves the customers.

13

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**Disadvantages of the system:**

\_Lots of paper work and references are to be done before the company can

recognize that the customer is a valid person or not.

\_There are many telephone calls involved before the customer can even be able

to post the problem. After the problem has been posted the solution can be given

immediately or it is wait-listed. The problem is urgent but it is wait-listed can

cause a lot of losses and hardship to the customer.

\_There is no way a support person can know the priority of the customer’s

problem until the customer mentions the urgency of the problem**.**

\_The support person may be attending a problem of lower priority though the

higher priority problems are been pending.

\_The company has to remind the customer before only about to his account

status. Then, the customer has to re-register with the company.

\_The customer has to contact the same person over the telephone to get the

solution of his pending problem.

\_The support person is kept busy at telephone rather than solving problem or

another person has to be employed to act as an intermediary between support

person and customer relaying the information to each other.

\_Long waiting periods and delay in receiving the solutions result in the customer

dissatisfaction and loss of business to the company.

14

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**PROPOSED SYSTEM:**

To overcome the above disadvantages mentioned, the proposed system is

modularised and the modules are

\_ **Registration module:** This module takes cares of client information. The

client has to register once. Then onwards the client can access the services

provided by the site any time in future till his validity period expires.

\_ **Customer module:** This module keeps complete information about

customers. Initially the customer has to register with E-SOLUTION PROVIDER.

The customers who register their information with E-SOLUTION PROVIDER are

eligible to avail services. The customer has to provide complete information, his

Business and other activities then only the organisation can provide complete

services.

\_ **Sales module**: This module keep track record of complete sales of E-

SOLUTION PROVIDER. This Module also take cares of the customers contract,

that is the customer has to Reregister with the organisation for every six month’s

other wise the contract will be cancelled.

\_ **Support module:** This module is responsible for providing the solutions.

This has several sub modules they are:

**i) Software module:** This module only deals with software related problems.

**ii) Hardware module:** This module only deals with hardware related problems.

**iii) Network module:** This module only deals with network related problems.

**iv) Database module:** This module only deals with database related problems.

\_ **Sub**

**Manager module**: This module keeps complete information about

employees. That is employee details, departments and their payment terms.

\_ **Super**

**Manager module:** This module is responsible for assigning new

services to the organisation. And also for approval and disapproval of the

customer’s**.**

15

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**Advantages of the proposed system:**

\_Amount of paper work is reduced and references to be carried out by the

company to validate the customer are automated. The company can concentrate

on the important tasks that are to be carried out.

\_The customer has to register with the company once and can, immediately,

avail the services offered. He can post the problem immediately without having to

make any telephone call or wait to meet the concerned person. He can retrieve

the results, at his own convenience, as and when the solutions are provided.

\_The customer can indicate the priority of his problem.

\_The support person has to attend the higher priority problem first before any

lower priority problem can be attended.

\_The company need not remind the customer about his account’s status. The

customer is updated with the account status whenever he logs into the system.

\_The customer has to log in to the system to retrieve the solution of his pending

Problem

.

\_The support person can attend to his work rather than be engaged in giving the

solutions to customer over telephone. This increases efficiency and there is a

lesser burden on the support person.

\_Waiting periods and delay in receiving the solutions are kept to bare minimum

and there is no customer dissatisfaction, which results in increasing business.

16

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**4.DESIGN**

17

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**4.1.Data flow diagrams:**

At the context level the customer sends his queries to the company from his

desktop and the experts in the company who were dedicated to that module will

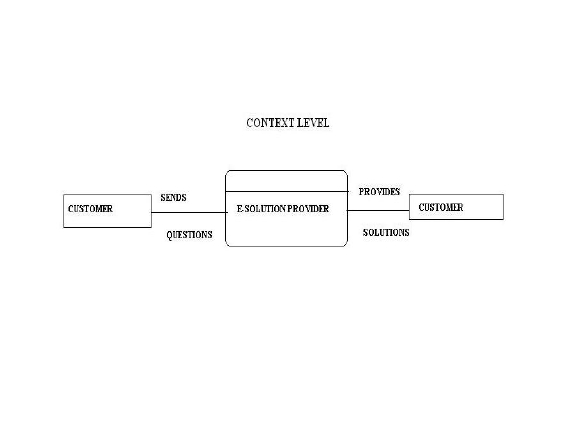
analyze the problem and give solution back to the customer and supports him in

every aspect.

18

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



In the first level of design the customer have to register to the company by

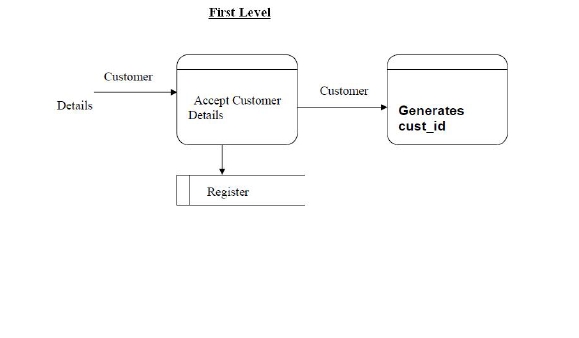
specifying his details and can use the services provided by the company by

logging in with his user id and password.

19

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**SECOND LEVEL**

In the second level of design the customer can use the services provided by the

company by logging in with his user id and password. Then he selects the

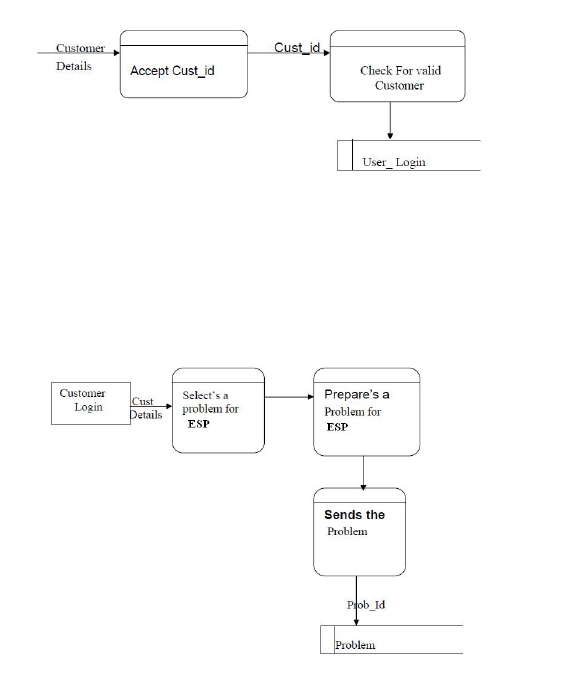
category and priority of the problem and sends it to the ESP. The problem will

then be sent to the appropriate support person in the company.

20

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**THIRD LEVEL**

The company accepts the problem posted by the user and then forwards it to the

appropriate support group and then the support person will look after the problem

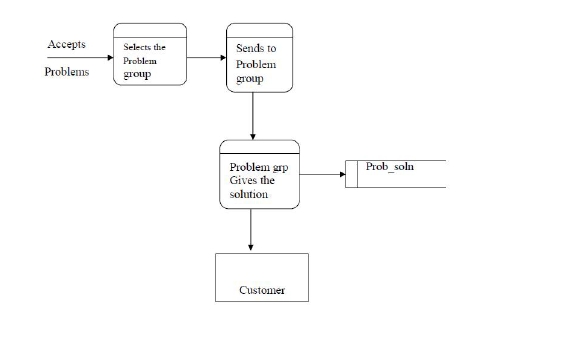
and gives the solution to the problem and then inturn it is sent back to the

customer.

21

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



4.2.UML DIAGRAMS:

E-SOLUTION PROVIDER

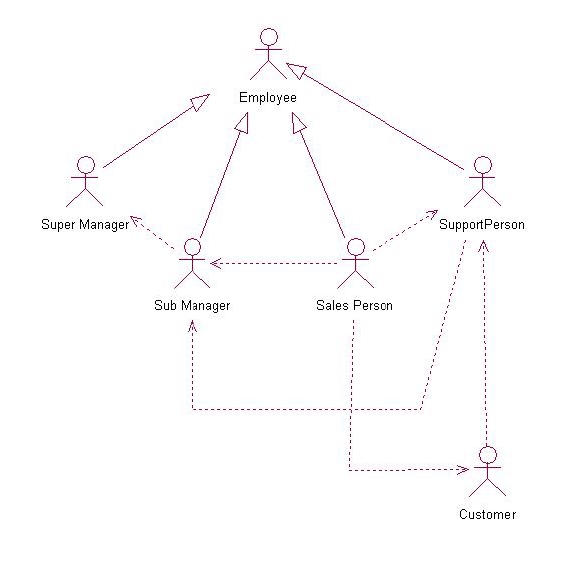
The above usecase diagram shows the relationship among all the actors in the

system including the customers.

22

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**Customer module :** This module keeps complete information about customers.

Initially the customer has to register with E-SOLUTION PROVIDER. The

customers who register their information with E-SOLUTION PROVIDER are

eligible to avail services. The customer has to provide complete information, his

Business and other activities then only the organisation can provide complete

services

**Fig4.2.1.1: Customer Use-Case Diagram.**

Customer

Enter the Login

details

[ IF THE LOGIN IS INCORRECT ]

[IF THE LOGIN

IS CORRECT]

Click the

appropriate Link

Post New Problem

View Solutions to

Download Software

posted problem

Logout(Click

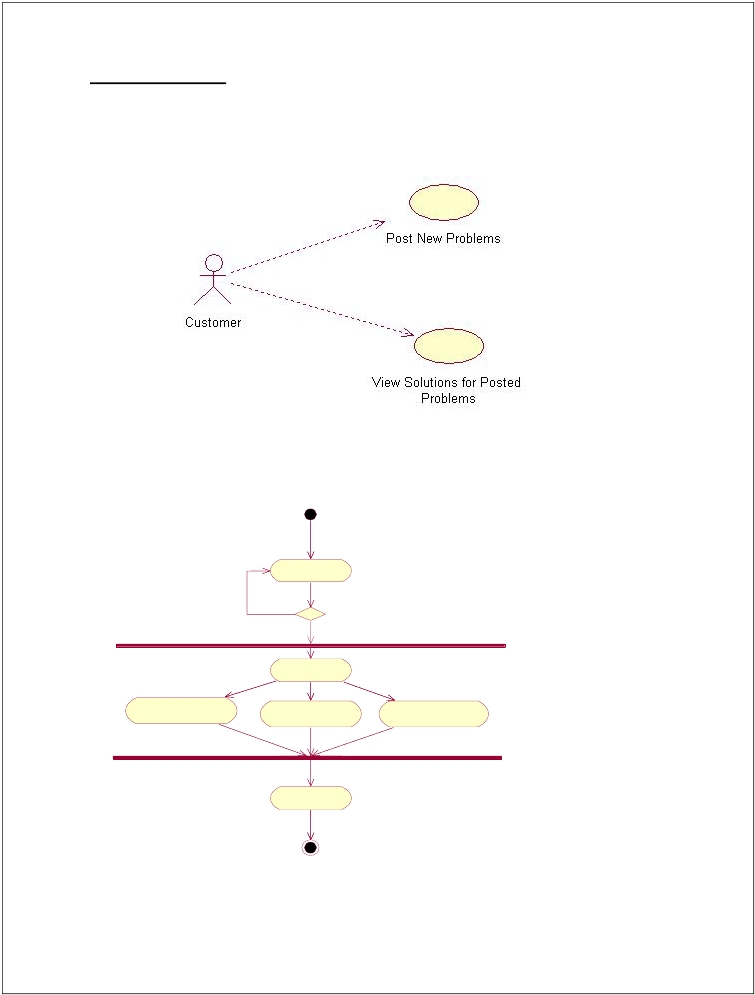
Homepage).

**Fig4.2.1.2: Customer Activity Diagram (State Machine Diagram).**

23

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



Customer

SupportPerson

Server

request( ) {Request for Software wanted tobe downloaded}

validate( ) {Checks whether that particular Customer has rights to download Software}

reply( ) {If Customer is valid person he will be allowed to download software by asking WHERE TO SAVE THE SOFTWARE}

postproblem( ) {Post the problem}

reply1( ) {Send the Particular date when to login to system to get solution}

Analyze the Problem Posted

postSol( ) {Solve the Problem and post the reply back to Customer}

**Fig4.2.1.3: Customer Sequence Diagram (Interaction Diagram).**

**Sales module:** This module keep track record of complete sales of E-SOLUTION

PROVIDER. This Module also take cares of the customers contract, that is the

customer has to Reregister with the organisation for every six month’s other wise

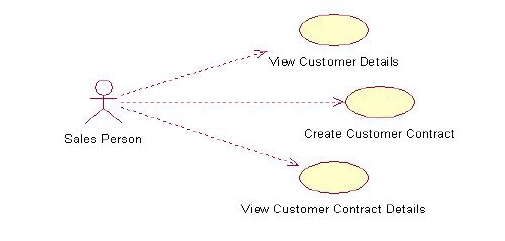
the contract will be cancelled.

**Fig4.2.2.1: Sales Person Use-Case Diagram.**

24

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



Sales Person

Enter the Login

details

[ IF THE LOGIN IS INCORRECT ]

[IF THE LOGIN

IS CORRECT]

Click the

appropriate Link

View Customer details

View Customer

Contract

View Customer

Contract Details

Logout(Click

Homepage).

**Fig4.2.2.2: Sales Person Activity Diagram.**

**Support module :** This module is responsible for providing the solutions. This

has several sub modules they are:

i) Software module**:** This module only deals with software related problems**.**

ii) Hardware module**:** This module only deals with hardware related problems**.**

iii) Network module**:** This module only deals with network related problems.

iv) Database module**:** This module only deals with database related problems.

View All Problems Assigned by

the customer

Support Person

Giving solutions to the assigned

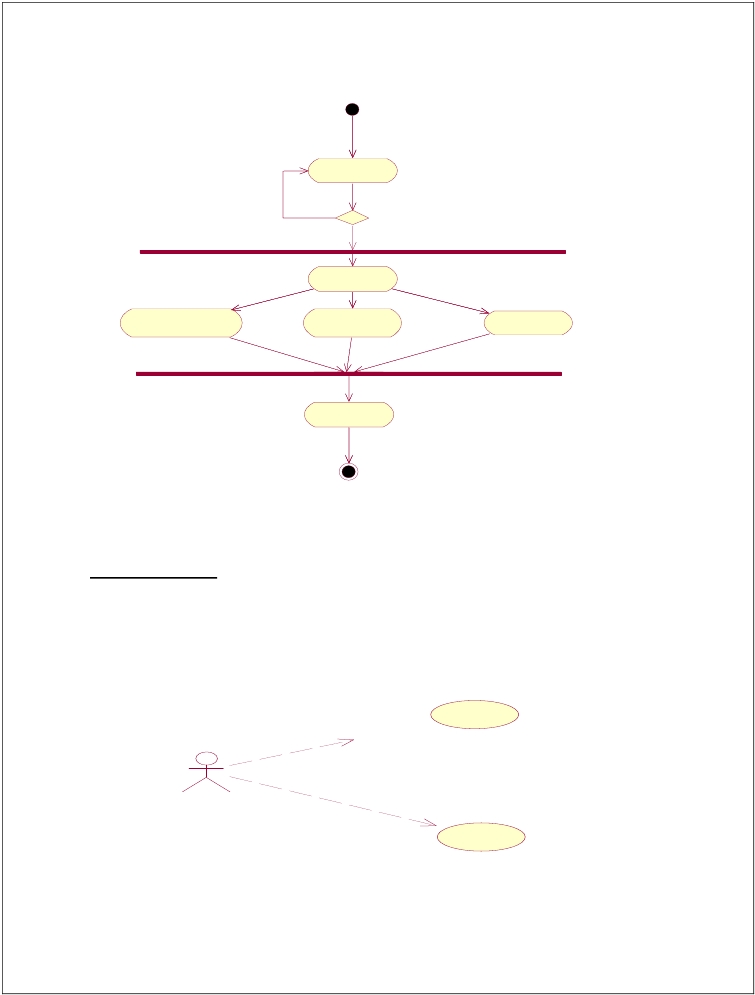
problem

**Fig4.2.3.1: Support Person Use-Case Diagram.**

25

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

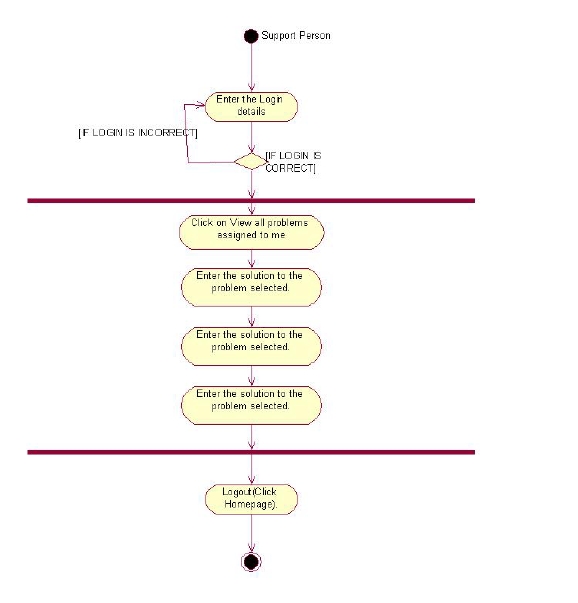


**Fig4.2.3.2: Support Person Activity Diagram**.

26

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



Customer

SupportPerson

Server

request( ) {Request for Software wanted tobe downloaded}

validate( ) {Checks whether that particular Customer has rights to download Software}

reply( ) {If Customer is valid person he will be allowed to download software by asking WHERE TO SAVE THE SOFTWARE}

postproblem( ) {Post the problem}

reply1( ) {Send the Particular date when to login to system to get solution}

Analyze the Problem Posted

postSol( ) {Solve the Problem and post the reply back to Customer}

**Fig4.2.3.3: Support Person Sequence Diagram.**

27

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**Sub Manager module:** This module keeps complete information about

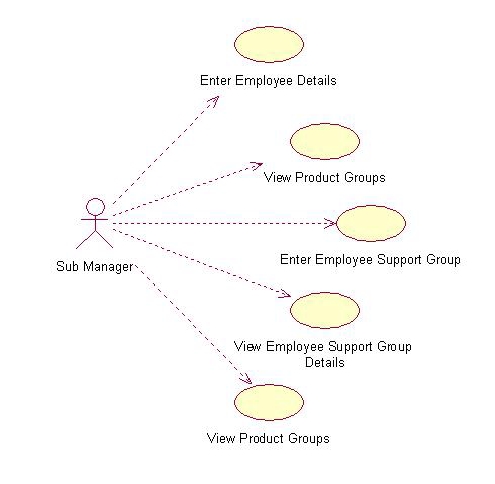
employees.That is employee details, departments and their payment terms.

**Fig4.2.4.1: Sub Manager Use-Case Diagram.**

28

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



Sub Manager

Enter the Login

details

[ IF THE LOGIN IS INCORRECT ]

[IF THE LOGIN

IS CORRECT]

Click the

appropriate Link

View Employee

Support group details

Enter Employee

Details

Enter Employyee

Support Group

View Employee

Details

Logout(Click

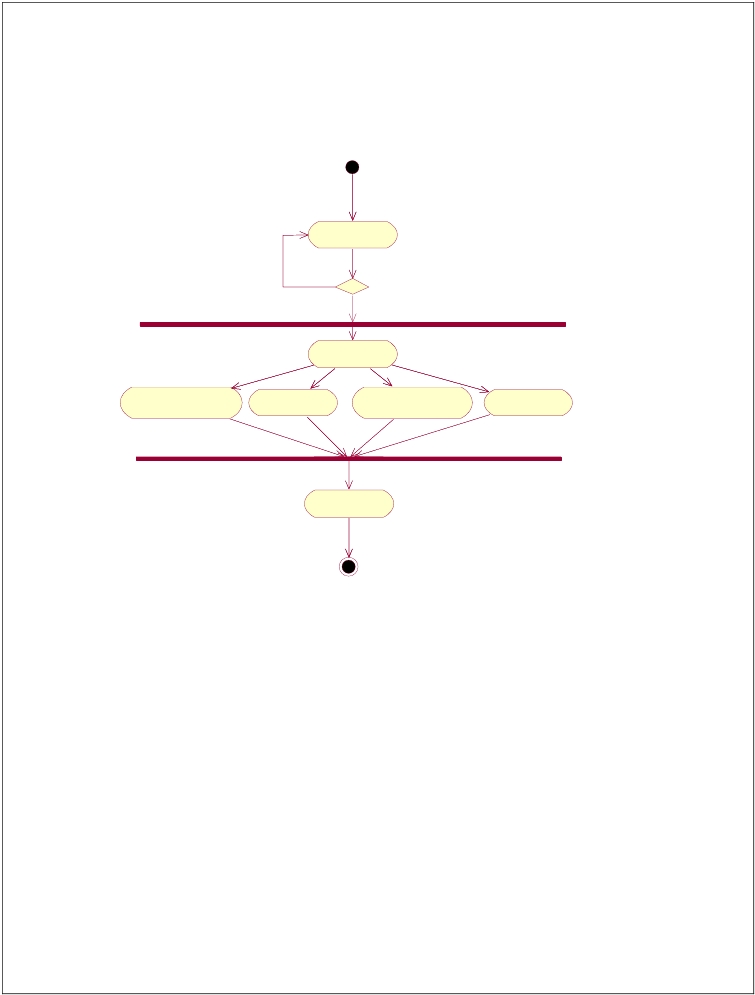
Homepage).

**Fig4.2.4.2: Sub Manager Activity Diagram.**

29

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



SubManager

Server

Database

register( ) {Enter details of new Employee}

Store into Database

Send Employee ID allotted

Display the Reply sent by database

display( ) {Request to display the matter requested }

generate query and run it

retrieve data and send it to server

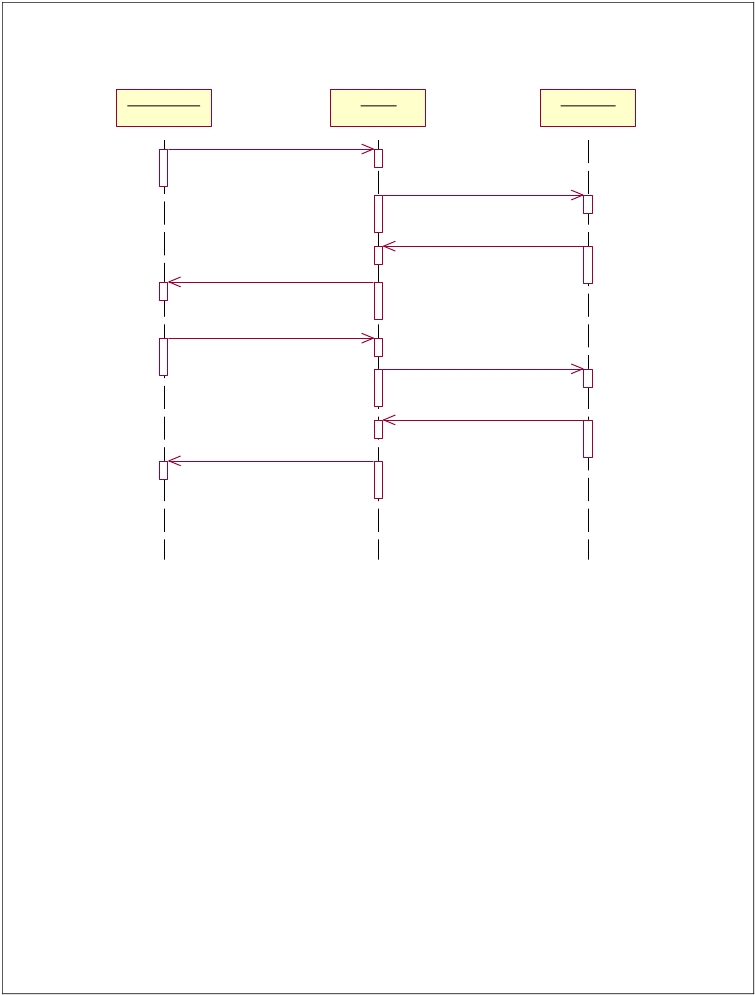
Display the Retrieved data

**Fig4.2.4.3: Sub Manager Sequence Diagram.**

30

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**Super Manager module :** This module is responsible for assigning new services

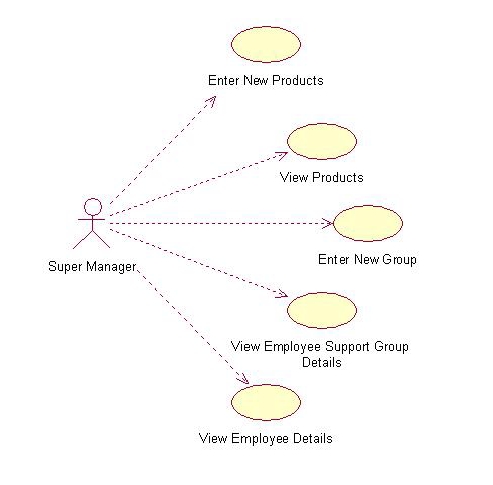
to the organisation. And also for approval and disapproval of the customer’s**.**

**Fig4.2.5.1: Super Manager Use-Case Diagram.**

31

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



Super Manager

Enter the Login

details

[ IF LOGIN IS INCORRECT ]

[IF LOGIN IS

CORRECT]

Click the

appropriate Link

View Employee

Details

Enter New

Products

View Employee

Support group details

Enter New

Groups

View Products

Logout(Click

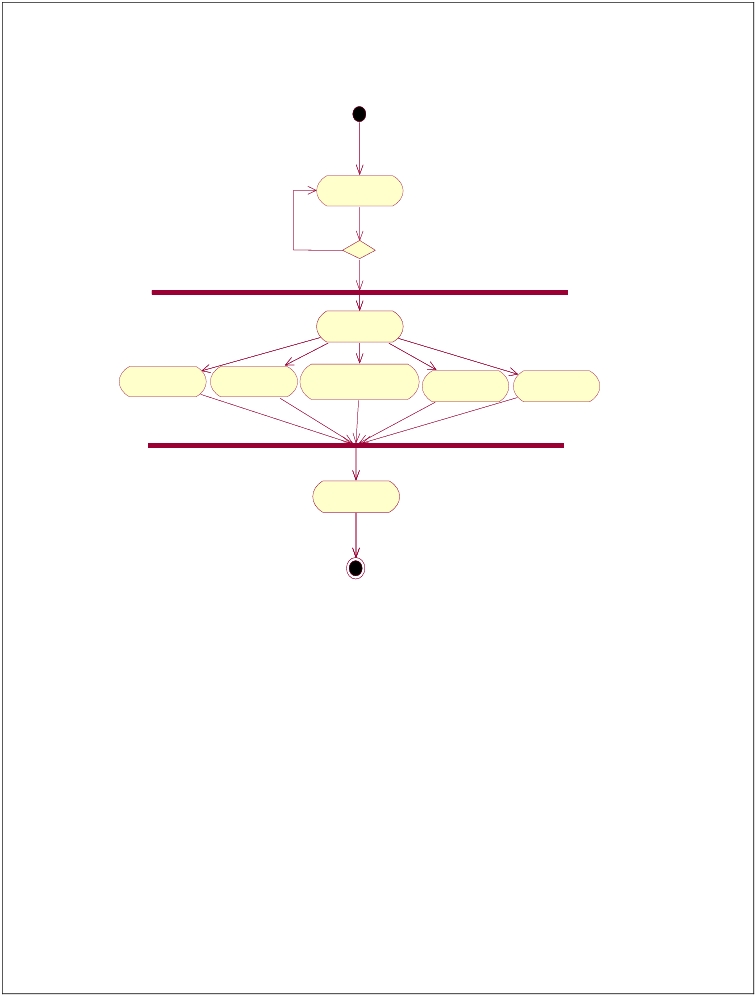
Homepage).

**Fig4.2.5.2: Super Manager Activity Diagram.**

32

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



SuperManager

Server

Database

registerprod( ) {Enter details of new product}

Store into Database

Send product ID allotted

Display the Reply sent by database

registerEmpgroup( ) {Enter the details of the new type of Employee group }

create a new Employee group

register and send new Employee group ID

Display the Retrieved data

display( ) {request for any data from database}

Generate query and run it and collect the data retrieved

Send the data collected by running query

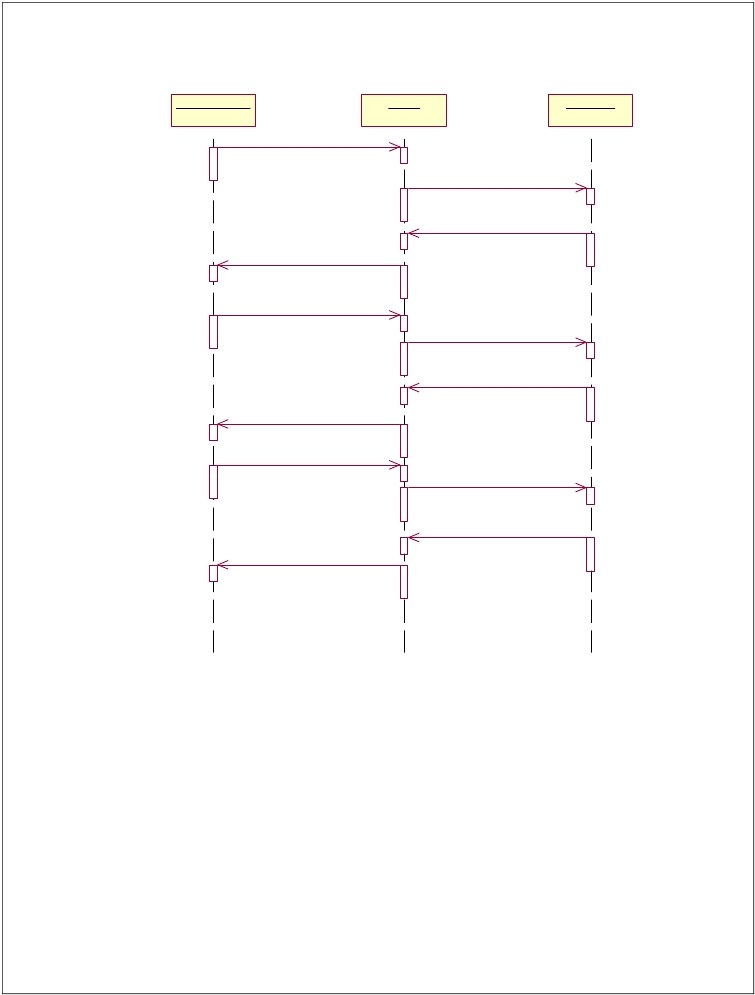
Display the data retrieved grom database

**Fig4.2.5.2: Super Manager Sequence Diagram.**

33

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



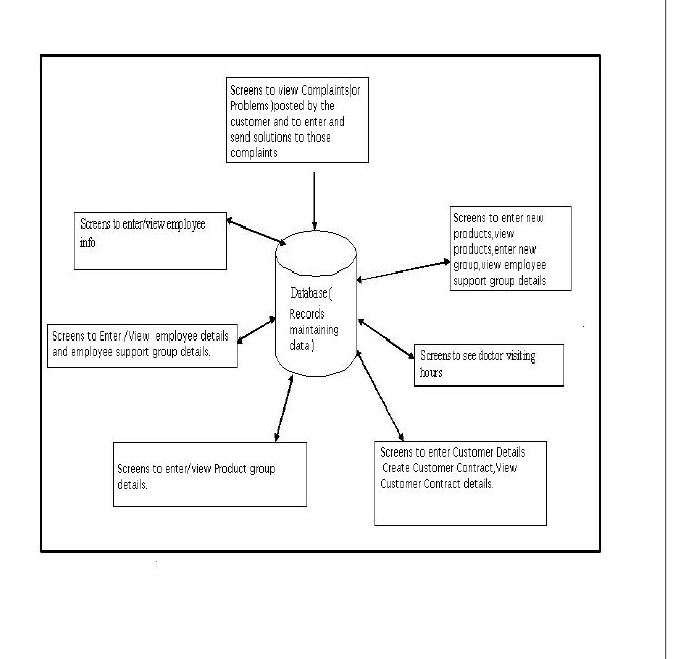
**4.3.Database Architechture & Design:**

Database Architecture

34

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

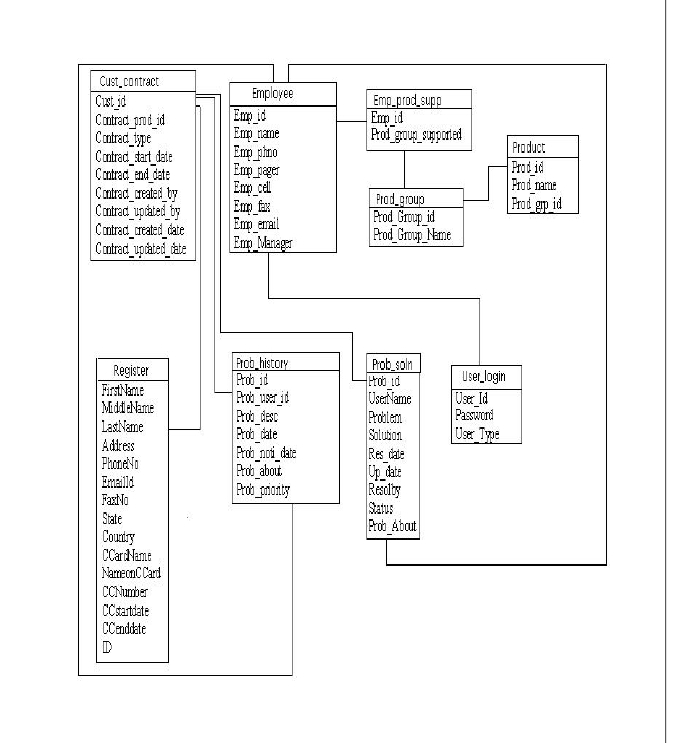


Database Design(ER-DIAGRAM)

35

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



4.4.Data Dictionary

Cust\_contract:

Employee:

36

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

|  |  |  |
| --- | --- | --- |
| Column name | Data type | Primary key |
| Cust\_id  Contract\_prod\_id  Contract\_type  Contract\_start\_date  Contract\_end\_date  Contract\_created\_by  Contract\_updated\_by  Contract\_created\_date  Contract\_updated\_date | Varchar2 (10)  Number (6)  Varchar2 (10)  Date  Date  Varchar2 (20)  Varchar2 (12)  Date  Date | --  Yes  --  --  --  --  --  --  -- |

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Primary Key |
| Emp\_id  Emp\_name  Emp\_phno  Emp\_pager  Emp\_cell  Emp\_fax  Emp\_email  Emp\_Manager | Number (6)  Varchar2 (50)  Varchar2 (15)  Varchar2 (15)  Varchar2 (15)  Varchar2 (15)  Varchar2 (30)  Varchar2 (15) | Yes  ---  ---  ---  ---  ---  ---  --- |

Emp\_prod\_supp

Prob\_soln:

37

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Primary Key |
| Prob\_id  UserName  Problem  Solution  Res\_date  Up\_date  Resolby  Status  Prob\_About | Number (6)  Varchar2 (20)  Varchar2 (250)  Varchar2 (300)  Date  Date  Varchar2 (20)  Varchar2 (20)  Varchar2 (20) | ---  ---  ---  ---  ---  ---  ---  ---  --- |

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Primary Key |
| Emp\_id  Prod\_group\_supported | Number (6)  Number (6) | Yes  -- |

Product:

Prod\_group:

Prob\_history:

38

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

|  |  |  |
| --- | --- | --- |
| Column name | Data type | Primary Key |
| Prob\_id  Prob\_user\_id  Prob\_desc  Prob\_date  Prob\_noti\_date  Prob\_about  Prob\_priority  status | Number (6)  Varchar2 (30)  Varchar2 (100)  Date  Date  Varchar2 (20)  Varchar2 (20)  Varchar2 (20) | Yes  ---  ---  ---  ---  ---  ---  --- |

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Primary Key |
| Prod\_id  Prod\_name  Prod\_grp\_id | Number (6)  Varchar2 (50)  Number (6) | Yes  ---  --- |

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Primary Key |
| Prod\_Group\_id  Prod\_Group\_Name | Number (6)  Varchar2 (30) | Yes  --- |

Register:

User\_login:

39

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Primary Key |
| FirstName  MiddleName  LastName  Address  PhoneNo  EmailId  FaxNo  State  Country  CCardName  NameonCCard  CCNumber  CCstartdate  CCenddate  ID | Varchar2 (15)  Varchar2 (15)  Varchar2 (15)  Varchar2 (50)  Number (15)  Varchar2 (50)  Number (15)  Varchar2 (15)  Varchar2 (15)  Varchar2 (20)  Varchar2 (50)  Number (10)  Date  Date  Varchar2 (10) | ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  Yes |

|  |  |  |
| --- | --- | --- |
| Column Name | Data type | Primary Key |
| User\_Id  Password  User\_Type | Varchar2 (10)  Varchar2 (15)  Varchar2 (20) | Yes  ---  --- |

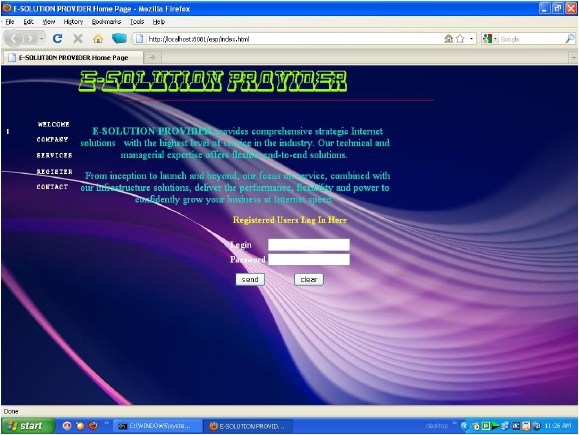
4.5.SCREENS :

Screen 1

40

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

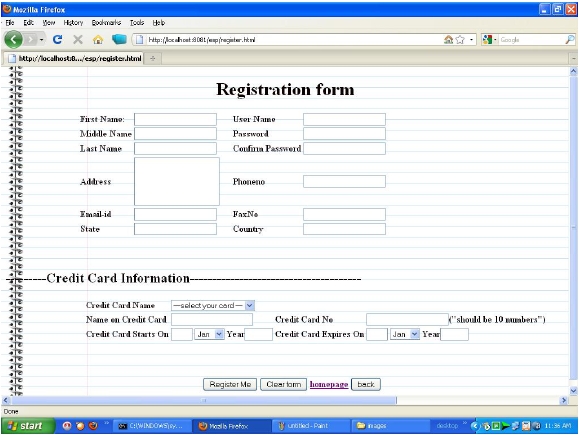


Registration

41

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

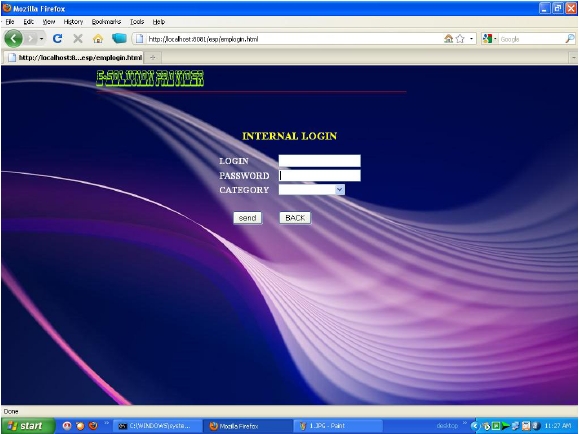


Screen 1.1

42

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

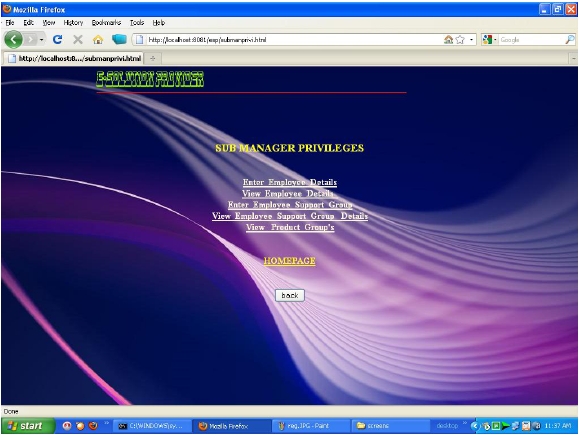


Screen 1.1.1

43

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

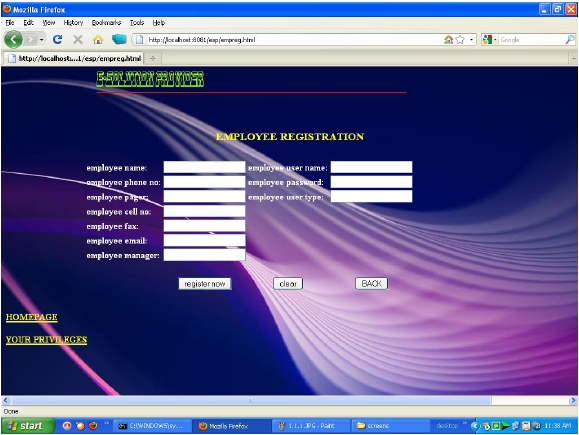


Screen 1.1.1.1

44

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

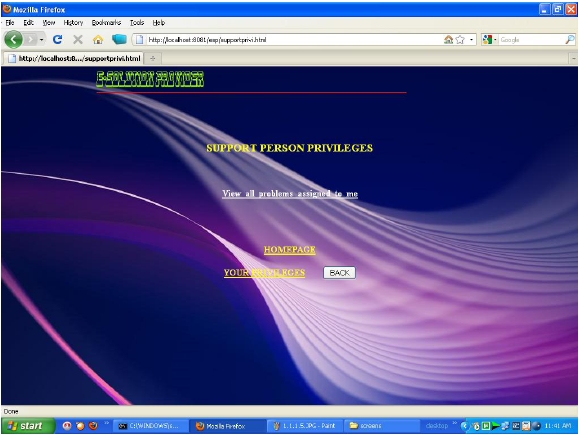


Screen 1.1.2

45

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

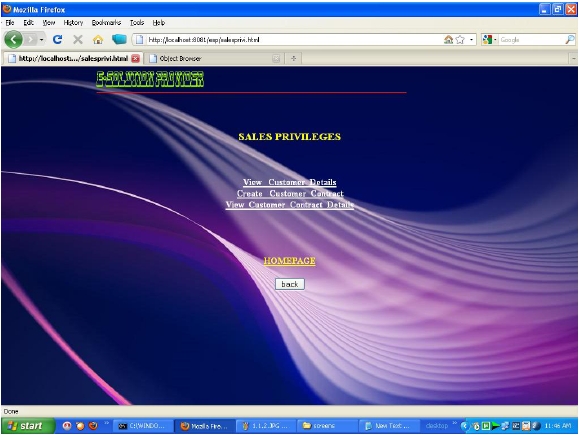


Screen 1.1.3

46

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

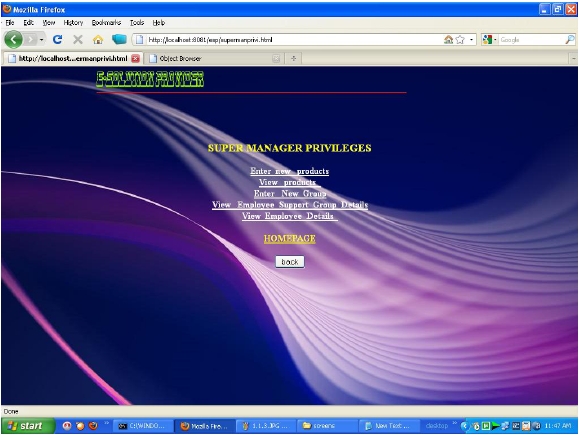


Screen 1.1.4

47

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

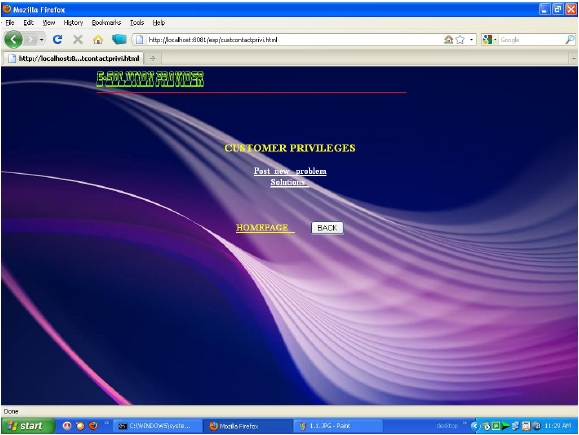


Screen 1.2

48

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

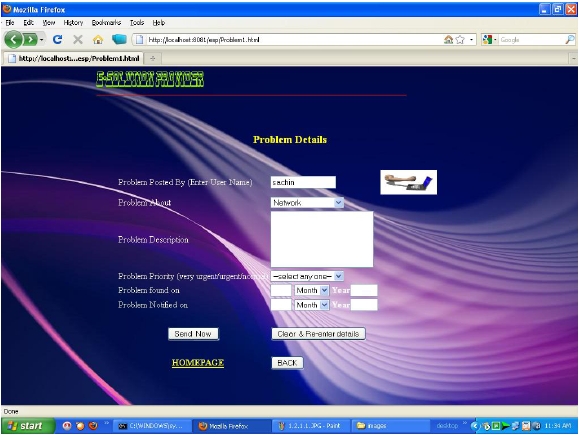


Screen 1.2.1

49

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

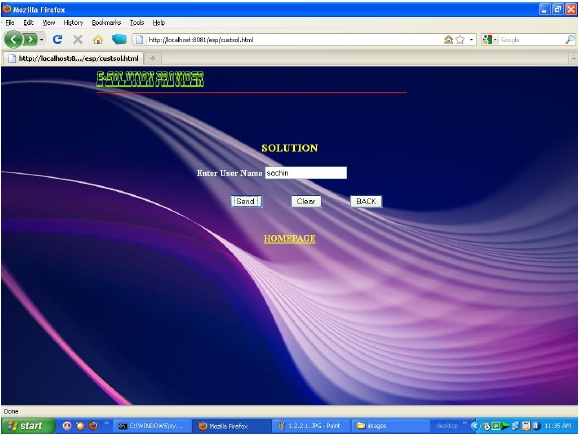


Screen 1.2.2

50

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

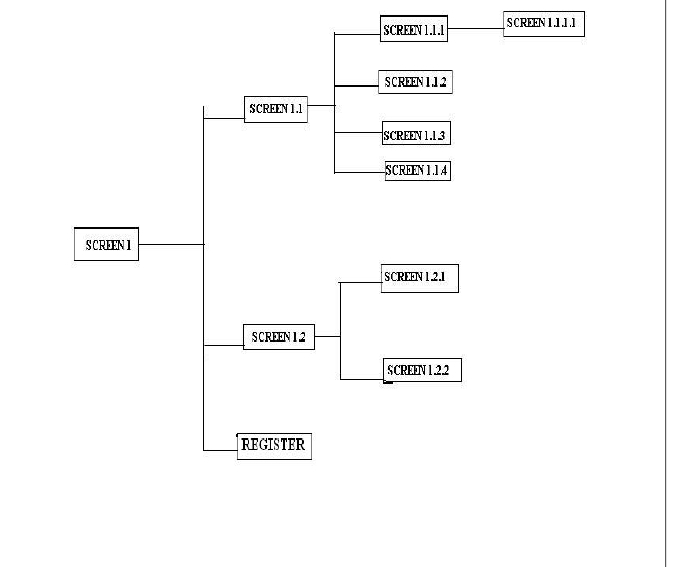


SCREEN FLOW DIAGRAM

51

E-SOLUTION PROVIDER

SCIENT INST.OF TECH



**5.TESTING**

52

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**5.1. Test Plan:**

Testing is an essential part of software/product development. The Test plan

followed in testing this system is that every condition is to be checked whether it

is getting executed correctly. Also, the different modules are individually tested,

later integrated and further tested. The first type of testing, usually called Unit

Testing is applied on each module, second, the Integrating Testing is applied

after each module is connected with other, finally, the System Testing is applied

after the whole system is ready. The following sections are a brief illustration of

Test Strategy and the illustration of Test Cases and their results.

**5.2. Test Strategy:**

Test Strategy employed in testing the product is that the individual modules are

tested for ensuring every conditional construct is correctly met, later integrating

similar modules again testing and finally testing the whole system for each and

every possibility that exists. The major modules like the registration, login,

Posting problems, viewing Solutions, posting solutions, logout are individually

tested for correctness in results. Then the modules like user login and employee

login are tested after integrating them into one unit, similarly other units like

posting , Registration ,group assignment are tested. Finally all the modules are

integrated into a complete system and tested for execution rigorously.

53

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**5.3. Test Cases:**

Test Cases form an important part of the phase of Testing because the cases

chosen for test should not be useless, nor be allocated most of the time. All the

test cases are to be allotted specific equal time and tested rigorously in that

specified time. The following are the test cases that are framed for testing this

system.

1. Registration, when user chooses a username that already exists, it should

display the reason correctly instead of registering directly.

2. After logging in, the test is to be performed to check if session is correctly

created and validated everywhere.

3. The test is to be performed to check if the problems posted by customer are

assigned to the correct support person.

4. After logging out, if the session is invalidated; this is checked by opening

any other page of user like login, etc.

The above test cases are performed for ensuring the system is working correctly

after the whole system is integrated into one.

54

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**6.CONCLUSION**

55

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**CONCLUSION:**

The efficiency of any system designed to suit an organization

depends cooperation during the implementation stage and also flexibility of

the system to adopt itself to the organization. E-Solution Providers is well

suited when organization want to provide IT Solutions on OnLine.

.

This application is currently used many online users to get the services of IT

online.With this system the user fetches advantages like time saving ,online

money payment etc.The user has to register first with the company then he/she

can avail the services provided by the company.After registration the user can

post the problem and get the solution from the company.They can get the

solution depending on their priority.It is a contract between the user and the

company by paying some amount through credit cards only.After completion of

the contract the users has to register with the company again and avail services

of the company.The project is used to solve the problem posted by the user.

56

E-SOLUTION PROVIDER

SCIENT INST.OF TECH

**7.BIBLIOGRAPHY:**

The Complete Reference Java 2

Java Server Pages

HTML Black Book

JavaScript

Software Engineering

A practitioner’s approach

Java Documentation

The unified modeling

language user guide

E-SOLUTION PROVIDER

:

:

:

:

:

:

:

57

Herbert Schildt

O’Relly

Holzner

Online Help

Roger S.Pressman

Online Help

Grady Booch

SCIENT INST.OF TECH