

ONLINE MOBILE RECHARGE SYSTEM

ASP.Net Web API Project

**[ASP.NET – MVC - WEB API / AJAX /
JQUERY/ ENTITY FRAMEWORK /
SQL SERVER]**

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PROJECT DESCRIPTION

Project Title : Online Mobile Recharge System

Abstract : This System provides recharge of many mobile companies as well as all kind of recharge are possible. This System will provide facility for customer to recharge mobile at anytime from anywhere. This System keeps the history of the past recharges. The user has to register himself.

Type of Project: Web API Application

Technology : ASP.Net – Web API -MVC, JQuery, AJAX, Entity Framework

Database : SQL-Server

Web Application Name:



A Payments App built for India, by Indians

DESCRIPTION:

The proposed project for recharging mobiles online is a web application developed to automate the mobile recharging process. It roots out the manual card system of recharge and introduces a new and genuine online recharge process. It can be used by costumer of any telecommunication company from anywhere.

The online mobile recharge system is beneficial to both the admins and users. Using the online application, the admin can add new tariff plans and update or modify the existing tariff plans. It helps the users in creating their account, and then recharging the mobiles phones at any time.

OBJECTIVE:

Online Mobile Recharge is a web-based application developed in ASP.NET to recharge mobile phones. The project focuses at providing an easy and reliable platform to recharge mobile of any telecommunication company through online without buying recharge card. The registered users of the system can recharge their prepaid mobile phones from anywhere at any time. The proposed project for recharging mobiles developed to automate the mobile recharging process. It roots out the manual card system of recharge and introduces a new and genuine online recharge process. The online mobile recharge system is beneficial to both the admins and users. Using the online application, the admin can add new operators, tariff plans, offers and update or modify the existing tariff plans. It helps the users in creating their account, and then recharging the mobiles phones at any time.

PROJECT DEMO:

Type of Users:

1. User / Customer
2. Admin

Project Flow:

● User Functionalities:

1. Create Account: Enter Personal & Mobile Network Details
2. Login: Authentication
3. User Home: Users can view recharge plans and various network operator details.
4. Recharge: Users can view recharge plans and recharge based on network operator and plan type using email authentication and payment gateway.
5. Add Money to Wallet: Users can add money to their wallet using credit / debit card with email authentication.
6. My Plans: Users can view their current plan and previous plans transaction history.
7. Edit Profile: User can update their personal and mobile network details. It also contains reset password option.
8. Customer Support: Users can send their queries to the respective team through mail.
9. Logout: Logout from the application

- **Admin Functionalities:**

1. Login: Authentication
2. Dashboard (Home): Admin can view the user data in different visualization format such as pie chart, bar graph and generate reports in pdf format based on the recharge plan transaction details.
3. Network Operator Manager: Admin can add, view, update, delete the network operator details.
4. Recharge Plan Manager: Admin can add, view, update, delete and search the mobile network plan details based on the network operators.
5. Plan Transaction Manager: Admin can view, search based on the transaction status and generate transaction report in the pdf format based on the transaction details.
6. Logout: Logout from the application

DATABASE DESIGN

Entity Relationship Diagram:

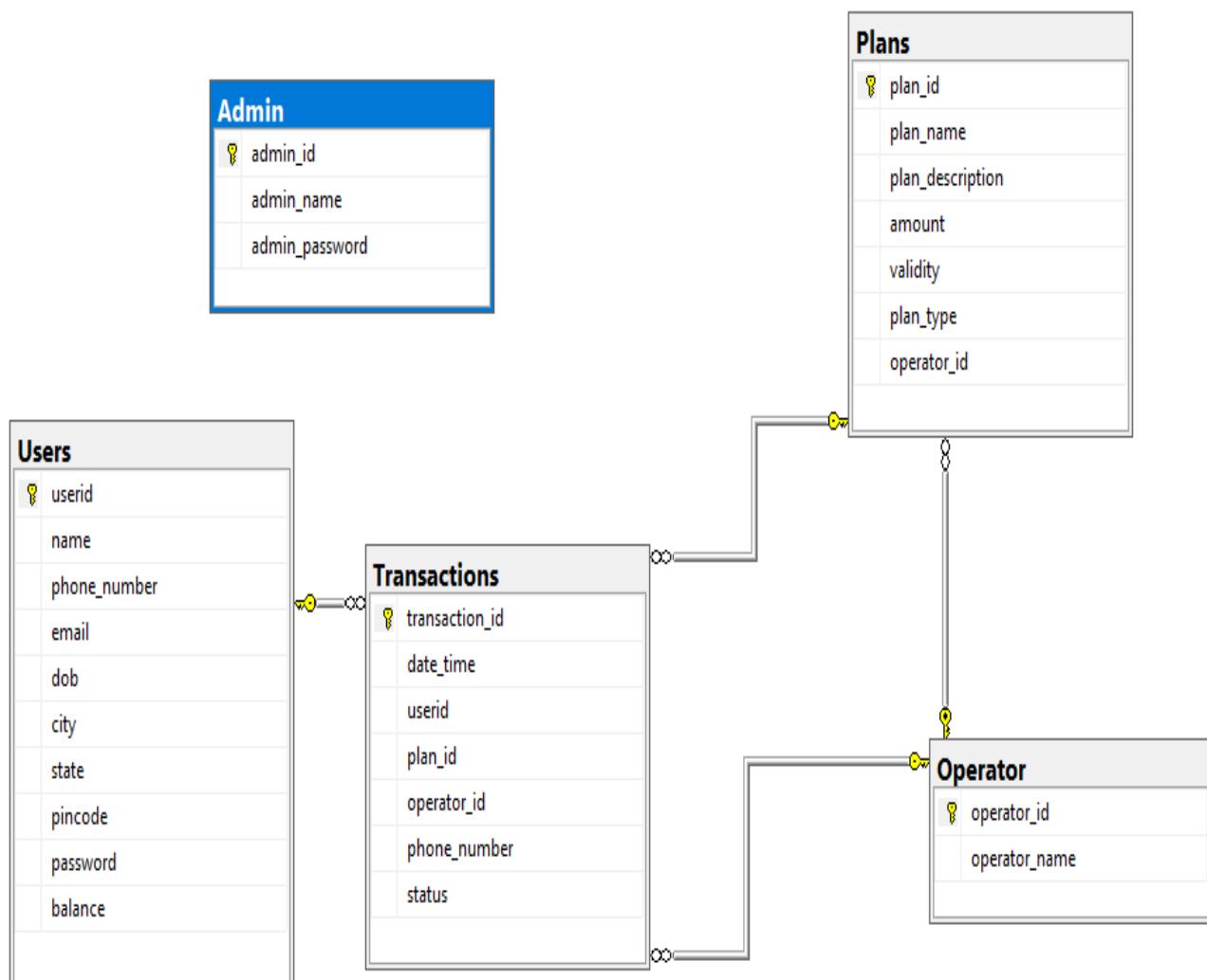


Table Schema Diagram:

TABLE 1: Users

Column Name	Data Type	Allow Nulls
userid	int	<input type="checkbox"/>
name	varchar(20)	<input checked="" type="checkbox"/>
phone_number	varchar(10)	<input type="checkbox"/>
email	varchar(250)	<input type="checkbox"/>
dob	date	<input type="checkbox"/>
city	varchar(20)	<input type="checkbox"/>
state	varchar(20)	<input type="checkbox"/>
pincode	varchar(6)	<input type="checkbox"/>
password	varchar(250)	<input type="checkbox"/>
balance	int	<input type="checkbox"/>

TABLE 2: Admin

Column Name	Data Type	Allow Nulls
admin_id	int	<input type="checkbox"/>
admin_name	varchar(20)	<input checked="" type="checkbox"/>
admin_password	varchar(20)	<input checked="" type="checkbox"/>

TABLE3: Operators

Column Name	Data Type	Allow Nulls
operator_id	int	<input type="checkbox"/>
operator_name	varchar(20)	<input checked="" type="checkbox"/>

TABLE4: Plans

Column Name	Data Type	Allow Nulls
plan_id	int	<input type="checkbox"/>
plan_name	varchar(250)	<input type="checkbox"/>
plan_description	varchar(250)	<input type="checkbox"/>
amount	int	<input type="checkbox"/>
validity	int	<input type="checkbox"/>
plan_type	varchar(100)	<input type="checkbox"/>
operator_id	int	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

TABLE5: Transactions

Column Name	Data Type	Allow Nulls
transaction_id	int	<input type="checkbox"/>
date_time	datetime	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
userid	int	<input type="checkbox"/>
plan_id	int	<input type="checkbox"/>
operator_id	int	<input type="checkbox"/>
phone_number	varchar(20)	<input type="checkbox"/>
status	varchar(20)	<input type="checkbox"/>
		<input type="checkbox"/>

SOURCE CODE

User Login

```
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using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data.SqlClient;
using System.Linq;
using System.Net.Http;
using System.Web;
using System.Web.Mvc;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class UserLoginController : Controller
    {
        public SqlConnection con;
        public SqlCommand cmd,cmd1,cmd2;
        public SqlDataAdapter da;
        public SqlDataReader dr;
        string sqlmaincon = ConfigurationManager.ConnectionStrings["mainconRC"].ConnectionString;
        // GET: AdminLogin
        public ActionResult ULogin()
        {
            return View();
        }
        public ActionResult Logout()
        {
            Session["UserID"] = null;
            Session.Abandon();
            Session.RemoveAll();
            return RedirectToAction("Index", "Home");
        }
        [HttpPost]
        public ActionResult ULogin(UserLogin user)
        {
            try
            {
                string email1 = user.email;
                con = new SqlConnection(sqlmaincon);
                con.Open();
                cmd = new SqlCommand("select * from Users where email=@email and password=@password",con);
                cmd.Parameters.AddWithValue("@email", user.email);
                cmd.Parameters.AddWithValue("@password", user.password);
                dr = cmd.ExecuteReader();
                if (dr.Read())
                {
                    dr.Close();
                    cmd1 = new SqlCommand("select userid from Users where email='" + email1 + "'",con);
                    cmd1.ExecuteScalar();
                    Session["UserKey"] = cmd1.ExecuteScalar().ToString();

                    Session["UserID"] = user.email;
                    con.Close();
                    return RedirectToAction("Index", "Home");
                }
                else
                {
                    con.Close();
                    return RedirectToAction("Index", "Home");
                }
            }
            catch (Exception e)
            {
                Console.WriteLine(e);
                throw;
            }
        }
    }
}
```

Recharge:

```
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using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data.SqlClient;
using System.IO;
using System.Linq;
using System.Net.Mail;
using System.Web;
using System.Web.Mvc;
using iTextSharp.text;
using iTextSharp.text.pdf;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class RechargeMVCController : Controller
    {
        public SqlConnection con;
        public SqlCommand cmd, cmd1, cmd2,cmd3,cmd4,cmd5;
        public SqlDataAdapter da;
        public SqlDataReader dr;
        string sqlmaincon = ConfigurationManager.ConnectionStrings["mainconRC"].ConnectionString;

        public ActionResult RechargeView()
        {
            if (Session["UserID"] != null)
            {
                con = new SqlConnection(sqlmaincon);
                con.Open();
                cmd2 = new SqlCommand("select balance from Users where userid='" + Session["Userkey"] + "'", con);
                cmd2.ExecuteScalar();
                ViewBag.bal = cmd2.ExecuteScalar().ToString();
                con.Close();
            }

            if (Session["UserID"]== null)
            {
                return RedirectToAction("ULogin", "UserLogin");
            }
            using (mainconRCEntities db = new mainconRCEntities())
            {
                List<Operator> op = db.Operators.ToList();
                List<Plan> plan = db.Plans.ToList();

                var plans = from o in op
                           join p in plan on o.operator_id equals p.operator_id into table1
                           from p in table1.ToList()
                           orderby o.operator_name ascending

                select new ViewModel
                {
                    op = o,
                    plan = p,
                };
            }

            return View(plans);
        }
    }
}
```

Recharge : contd..

```
[System.Web.Mvc.HttpPost]
public ActionResult RechargeView(RechargeClass rc)
{
    con = new SqlConnection(sqlmaincon);
    con.Open();

    Session["phone"] = rc.PhoneNumber;
    Session["operatorname"] = rc.NetworkOperator;
    Session["plantype"] = rc.PlanCategory;
    Session["planname"] = rc.PlanName;
    Session["amount"] = rc.Amount;

    string q_balance = "select balance from Users where userid =" + Session["UserKey"];

    SqlCommand cmd = new SqlCommand(q_balance, con);

    int balance = Convert.ToInt32(cmd.ExecuteScalar());
    Session["balance"] = balance;

    if (balance < Convert.ToInt32(Session["amount"]))
    {
        Session.Remove("phone");
        Session.Remove("operatorname");
        Session.Remove("plantype");
        Session.Remove("planname");
        Session.Remove("amount");
        return RedirectToAction("UserMoney", "UserMoney");
    }

    if (balance > Convert.ToInt32(Session["amount"]))
    {
        if (Session["amount"] != null)
        {
            try
            {
                SmtpClient smtp = new SmtpClient();
                smtp.Host = "smtp.gmail.com";
                smtp.Port = 587;
                smtp.Credentials = new System.Net.NetworkCredential("minnanjal2500@gmail.com",
                "300999@krr");
                smtp.EnableSsl = true;
                MailMessage mm = new MailMessage();
                mm.Subject = "OTP ALERT";
                Random rn = new Random();
                Global.otp = rn.Next(10000, 99999).ToString();
                mm.Body = "Dear " + "Customer " + "Your Otp " + Global.otp + " Thanks";
                mm.To.Add(Session["UserID"].ToString());
                string frmmailaddress = "minnanjal2500@gmail.com";
                mm.From = new MailAddress(frmmailaddress, "Apay");
                try
                {
                    if(Convert.ToInt32(Session["amount"])!=0)
                    {
                        smtp.Send(mm);
                        con.Close();
                        return RedirectToAction("SendRechargeOtp", "RechargeMVC");
                    }
                }
                catch (Exception e)
                {
                    Console.WriteLine(e);
                    throw;
                }
            }
            catch (Exception e)
            {
                Console.WriteLine(e);
                throw;
            }
            return RedirectToAction("RechargeView", "RechargeMVC");
        }
        return RedirectToAction("RechargeView", "RechargeMVC");
    }

    return RedirectToAction("SendRechargeOtp", "RechargeMVC");
}
}
```

Send OTP Recharge:

```
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using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data.SqlClient;
using System.IO;
using System.Linq;
using System.Net.Mail;
using System.Web;
using System.Web.Mvc;
using iTextSharp.text;
using iTextSharp.text.pdf;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class RechargeMVCController : Controller
    {
        public SqlConnection con;
        public SqlCommand cmd, cmd1, cmd2, cmd3, cmd4, cmd5;
        public SqlDataAdapter da;
        public SqlDataReader dr;
        string sqlmaincon = ConfigurationManager.ConnectionStrings["mainconRC"].ConnectionString;

        public ActionResult SendRechargeOtp()
        {
            if (Session["UserID"] == null)
            {
                return RedirectToAction("ULogin", "UserLogin");
            }
            if (Session["UserID"] != null)
            {
                con = new SqlConnection(sqlmaincon);
                con.Open();
                cmd2 = new SqlCommand("select balance from Users where userid='" + Session["Userkey"] + "'", con);
                cmd2.ExecuteScalar();
                ViewBag.bal = cmd2.ExecuteScalar().ToString();
                con.Close();

            }
            return View();
        }
        [HttpPost]
        public ActionResult SendRechargeOtp(PasswordReset pwd)
        {
            con = new SqlConnection(sqlmaincon);
            con.Open();
            if (Global.otp == pwd.otp)
            {
                string q_plan_id = "select plan_id from Plans where plan_type = '" + Session["plantype"] +
                    "' and plan_name = '" + Session["planname"] + "' and amount = '" + Session["amount"];
                cmd2 = new SqlCommand(q_plan_id, con);
                int plan_id = Convert.ToInt32(cmd2.ExecuteScalar());
                string q_operator_id = "select operator_id from Operator where operator_name = '" +
                    Session["operatorname"] + "'";
                cmd3 = new SqlCommand(q_operator_id, con);
                int operator_id = Convert.ToInt32(cmd3.ExecuteScalar());
                string date = DateTime.Now.ToString("yyyy-MM-dd HH:mm:ss");
                string q_transact = " insert into Transactions values(@date,@uid,@pid,@oid,@phno,@status)";
                cmd4 = new SqlCommand(q_transact, con);
                cmd4.Parameters.AddWithValue("@date", date);
                cmd4.Parameters.AddWithValue("@uid", Session["UserKey"]);
                cmd4.Parameters.AddWithValue("@pid", plan_id);
                cmd4.Parameters.AddWithValue("@oid", operator_id);
                cmd4.Parameters.AddWithValue("@phno", Session["phone"]);
                cmd4.Parameters.AddWithValue("@status", "Success");
                cmd4.ExecuteNonQuery();
            }
        }
    }
}
```

Send OTP Recharge: contd.

```
string q_bal_update =
    "update Users set balance = @bal - @amt where userid =" +
    Session["UserKey"];
cmd5 = new SqlCommand(q_bal_update, con);
cmd5.Parameters.AddWithValue("@bal", Session["balance"]);
cmd5.Parameters.AddWithValue("@amt", Session["amount"]);
cmd5.ExecuteNonQuery();
cmd = new SqlCommand("Select balance from Users where userid=" + Session["UserKey"], con);
Session["walbal"] = cmd.ExecuteScalar();
con.Close();

if (Session["amount"] == null)
{
    return RedirectToAction("RechargeView", "RechargeMVC");
}

SmtpClient smtp = new SmtpClient();
smtp.Host = "smtp.gmail.com";
smtp.Port = 587;
smtp.Credentials = new System.Net.NetworkCredential("minnanjal2500@gmail.com", "300999@krr");
smtp.EnableSsl = true;
MailMessage mm = new MailMessage();
mm.Subject = "RECHARGE SUCCESSFULLY";
mm.Body = "Dear " + "Customer " + "Your Recharge of Rupees plan" + Session["amount"] +
    " is Successfully" + Session[""] + "\nThanks\nWith Regards\nRpay";
mm.To.Add(Session["UserID"].ToString());
string frmmailaddress = "minnanjal2500@gmail.com";
mm.From = new MailAddress(frmmailaddress, "Apay");
MemoryStream ms = new MemoryStream();
Document doc = new Document(PageSize.A4, 10f, 10f, 100f, 0.0f);

PdfWriter writer = PdfWriter.GetInstance(doc, ms);
doc.Open();
doc.Add(new Paragraph("Dear " + "Customer\n" + "Your Transcation of Rupees " + Session["amount"] +
    " from wallet to Rpay is Successful. Your Updated Balance is " + Session["walbal"] +
    "\nThanks"));

writer.CloseStream = false;
doc.Close();
ms.Position = 0;
mm.Attachments.Add(new Attachment(ms, "Invoice.pdf"));
try
{
    smtp.Send(mm);
    Session.Remove("phone");
    Session.Remove("operatorname");
    Session.Remove("plantype");
    Session.Remove("planname");
    Session.Remove("amount");
    Session.Remove("balance");
}
catch (Exception e)
{
    Console.WriteLine(e);
    throw;
}
}

if (Global.otp != pwd.otp)
{
    ViewBag.incrtootp = "IN CORRECT OTP";
    return RedirectToAction("SendRechargeOtp", "RechargeMVC");
}
}
return RedirectToAction("Index", "Home");
}
```

Email OTP Generation:

```
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using System;
using System.Collections.Generic;
using System.Linq;
using System.Net.Mail;
using System.Web;
using System.Web.Mvc;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class EmailOtpController : Controller
    {
        public string otp;
        // GET: EmailOtp
        public ActionResult Index()
        {
            return View();
        }

        [HttpPost]
        public ActionResult SendOtp()
        {
            SmtpClient smtp =new SmtpClient();
            smtp.Host = "smtp.gmail.com";
            smtp.Port = 587;
            smtp.Credentials =new System.Net.NetworkCredential("minnanjal2500@gmail.com","300999@krr");
            smtp.EnableSsl = true;
            MailMessage mm =new MailMessage();
            mm.Subject = "OTP ALERT";
            Random rn =new Random();
            otp = rn.Next(10000, 99999).ToString();
            ViewBag.otdata = otp;
            mm.Body="Dear " + "Customer " + "Your Otp " + otp + " Thanks";
            mm.To.Add(Global.UserID);
            string frmaddress = "minnanjal2500@gmail.com";
            mm.From =new MailAddress(frmaddress);
            try
            {
                smtp.Send(mm);
            }
            catch(Exception)
            {
                return View();
            }

            return RedirectToAction("Index","EmailOtp");
        }
    }
}
```

Add Money to Wallet:

```
● ● ●

using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data.SqlClient;
using System.IO;
using System.Linq;
using System.Net.Mail;
using System.Web;
using System.Web.Mvc;
using iTextSharp.text;
using iTextSharp.text.pdf;
using iTextSharp.text.pdf.codec;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class UserMoneyController : Controller
    {
        public SqlConnection con;
        public SqlCommand cmd,cmd2;
        public SqlDataAdapter da;
        public SqlDataReader dr;
        string sqlmaincon = ConfigurationManager.ConnectionStrings["mainconRC"].ConnectionString;
        // GET: UserMoney
        public ActionResult UserMoney()
        {
            if (Session["UserID"] == null)
            {
                return RedirectToAction("ULogin", "UserLogin");
            }
            if (Session["UserID"] != null)
            {
                con = new SqlConnection(sqlmaincon);
                con.Open();
                cmd2 = new SqlCommand("select balance from Users where userid='" + Session["Userkey"] + "'", con);
                cmd2.ExecuteScalar();
                ViewBag.bal = cmd2.ExecuteScalar().ToString();
                con.Close();
            }
            return View();
        }

        public ActionResult PaymentOtp()
        {
            try
            {
                SmtpClient smtp = new SmtpClient();
                smtp.Host = "smtp.gmail.com";
                smtp.Port = 587;
                smtp.Credentials = new System.Net.NetworkCredential("minnanjal2500@gmail.com", "300999@krr");
                smtp.EnableSsl = true;
                MailMessage mm = new MailMessage();
                mm.Subject = "PAYMENT ALERT";
                Random rn = new Random();
                Global.otp = rn.Next(10000, 99999).ToString();
                mm.Body = "Dear " + "User " + "Your Otp " + Global.otp + " Thanks";
                mm.To.Add(Session["UserID"].ToString());
                string frmialaddress = "minnanjal2500@gmail.com";
                mm.From = new MailAddress(frmialaddress);
                try
                {
                    smtp.Send(mm);
                }
                catch (Exception e)
                {
                    Console.WriteLine(e);
                    throw;
                }
            }
            catch (Exception e)
            {
                Console.WriteLine(e);
                throw;
            }
            return View();
        }
    }
}
```

Add money to Wallet: contd

```
[HttpPost]
public ActionResult UserMoney(UserMoney user)
{
    try
    {
        con = new SqlConnection(sqlmaincon);
        con.Open();
        cmd = new SqlCommand("UPDATE Users SET balance=balance+@balance WHERE userid=@userid", con);
        cmd.Parameters.AddWithValue("@userid", Session["UserKey"]);
        cmd.Parameters.AddWithValue("@balance", user.addamount);
        cmd.ExecuteNonQuery();
        con.Close();

        SmtpClient smtp = new SmtpClient();
        smtp.Host = "smtp.gmail.com";
        smtp.Port = 587;
        smtp.Credentials = new System.Net.NetworkCredential("minnanjal2500@gmail.com", "300999@krr");
        smtp.EnableSsl = true;
        MailMessage mm = new MailMessage();
        mm.Subject = "TRANSACTION ALERT";
        mm.Body = "Dear " + "Customer " + "Your Transcation of Rupees " + user.addamount +
                  " is Successfully Added to Your Wallet \nThanks";
        mm.To.Add(Session["UserID"].ToString());
        string frmailaddress = "minnanjal2500@gmail.com";
        mm.From = new MailAddress(frmailaddress, "Apay");

        MemoryStream ms = new MemoryStream();
        Document doc = new Document(PageSize.A4, 10f, 10f, 100f, 0.0f);
        PdfWriter writer = PdfWriter.GetInstance(doc, ms);
        doc.Open();

        doc.Add(new Paragraph("Dear " + "Customer\n " + "Your Transcation of Rupees " + user.addamount +
                  " is Successfully Added to Your Wallet \nThanks"));
        writer.CloseStream = false;
        doc.Close();
        ms.Position = 0;
        mm.Attachments.Add(new Attachment(ms, "Bill.pdf"));
        try
        {
            smtp.Send(mm);
        }
        catch (Exception e)
        {
            Console.WriteLine(e);
            throw;
        }

        return RedirectToAction("Index", "Home");
    }
    catch (Exception e)
    {
        Console.WriteLine(e);
        throw;
    }

}
}
```

My Plans:

```
using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data.SqlClient;
using System.Linq;
using System.Security.Cryptography.X509Certificates;
using System.Web;
using System.Web.Mvc;
using online_recharge_system.Models;

namespace online_recharge_system.Controllers
{
    public class MyPlansMVCController : Controller
    {

        public SqlConnection con;
        public SqlDataAdapter da;
        public SqlDataReader dr;
        public SqlCommand cmd2;
        string sqlmaincon = ConfigurationManager.ConnectionStrings["mainconRC"].ConnectionString;

        public ActionResult UserPlans()
        {
            if (Session["UserID"] != null)
            {

                con = new SqlConnection(sqlmaincon);
                con.Open();
                cmd2 = new SqlCommand("select balance from Users where userid='" + Session["Userkey"] + "'", con);
                cmd2.ExecuteScalar();
                ViewBag.bal = cmd2.ExecuteScalar().ToString();
                con.Close();
            }

            try
            {
                con = new SqlConnection(sqlmaincon);
                con.Open();
                string q_phone = "select phone_number from Users where userid =" + Session["UserKey"];
                SqlCommand cmd1 = new SqlCommand(q_phone, con);
                string ph_no = cmd1.ExecuteScalar().ToString();
                string phonenumber = ph_no;
                string q_user = "select TOP 1
U.name,O.operator_name,T.phone_number,P.plan_name,P.plan_description,P.amount,P.validity,T.date_time   from Operator as" +
                    "  O full outer join Plans as P on O.operator_id = P.operator_id full outer join Transactions as T on
P.plan_id = T.plan_id full outer join Users as" +
                    "  U on T.userid = U.userid where T.phone_number = '" + phonenumber + "' order by t.date_time desc";
                SqlCommand cmd2 = new SqlCommand(q_user, con);

                dr = cmd2.ExecuteReader();
                dr.Read();
                ViewBag.operatorname = dr["operator_name"].ToString();
                ViewBag.phone = dr["phone_number"];
                ViewBag.planname = dr["plan_name"];
                ViewBag.plandesc = dr["plan_description"];
                ViewBag.amount = dr["amount"];
                ViewBag.validity = dr["validity"];
                ViewBag.date = Convert.ToDateTime(dr["date_time"]);
            }
            catch (Exception)
            {
                Session["nodata"] = "NO RECORDS FOUND";
                return RedirectToAction("Index", "Home");
            }

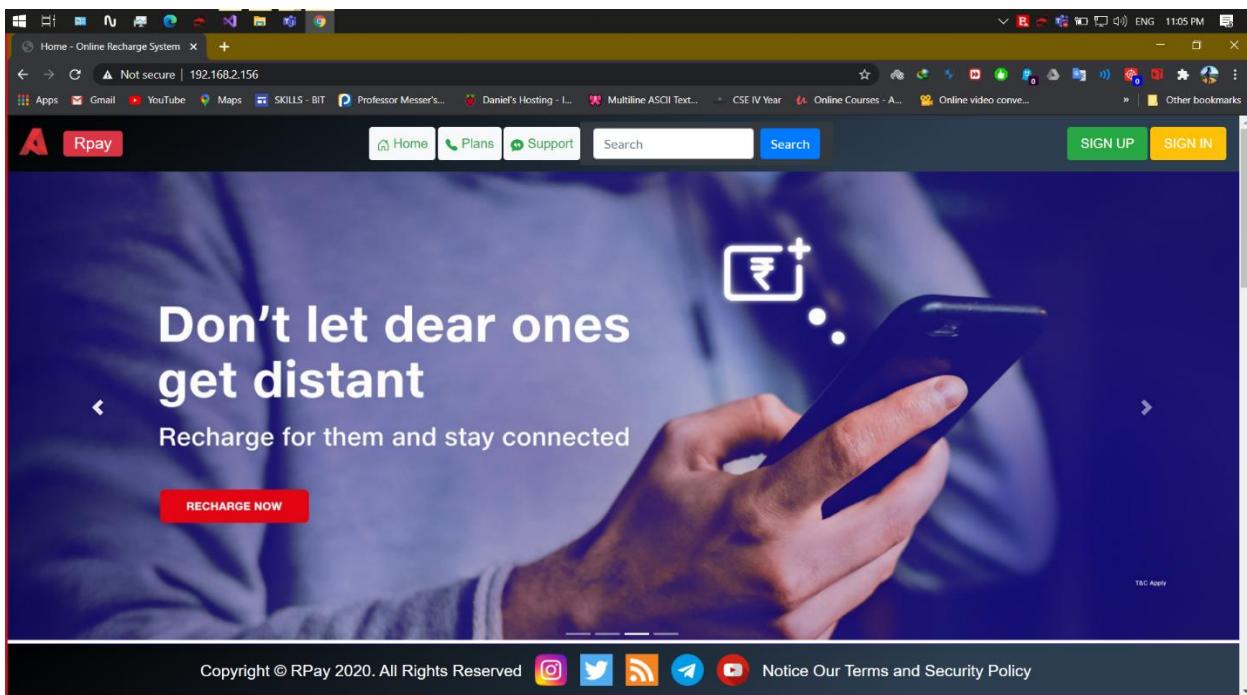
            using (mainconREntities db = new mainconREntities())
            {
                List<Operator> op = db.Operators.ToList();
                List<Plan> plan = db.Plans.ToList();
                List<User> user = db.Users.ToList();
                List<Transaction> transact = db.Transactions.ToList();

                var plans = from o in op
                           join p in plan on o.operator_id equals p.operator_id into table1
                           from p in table1.ToList()
                           join t in transact on p.plan_id equals t.plan_id into table2
                           from t in table2.ToList()
                           join u in user on t.userid equals u.userid into table3
                           from u in table3.ToList()
                           where u.userid == Convert.ToInt32(Session["UserKey"])
                           orderby t.date_time descending

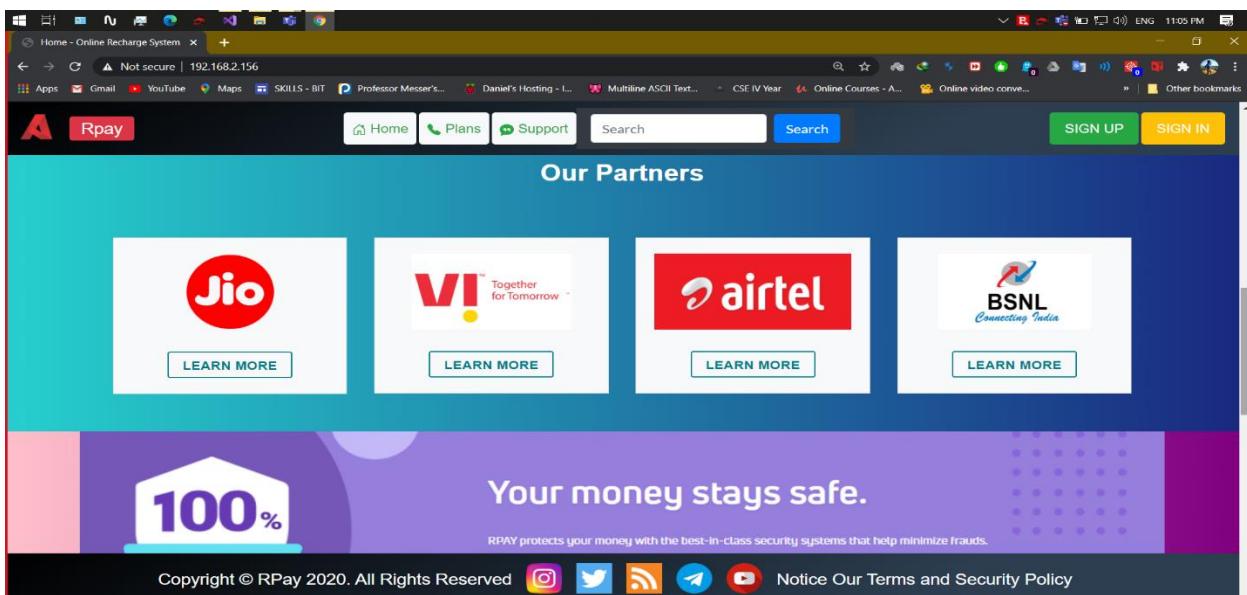
                select new ViewModel
                {
                    op = o,
                    plan = p,
                    user = u,
                    transact = t
                };
            }
        }
    }
}
```

PROJECT OUTPUT SCREENSHOTS

SCREENSHOT 1.1: Home



SCREENSHOT 1.2: Home (Our Network Partners)



SCREENSHOT 1.3: Home (Our Team)

The screenshot shows the 'Our Team' section of the RPay website. It features five team members arranged in two rows. The first row contains three members: Naveeth Z A, Saravana, and Rajagurunathan. The second row contains two members: Kumar(Mr.WhiteHost) and Manikandan. Each team member has a profile picture, name, and title. The background is red, and there are orange vertical bars on either side of the team grid.

Name	Title
Naveeth Z A	Software Developer Intern Kovai.co
Saravana	
Rajagurunathan	
Kumar(Mr.WhiteHost)	Software Developer Intern Kovai.co
Manikandan	Software Developer Intern Kovai.co

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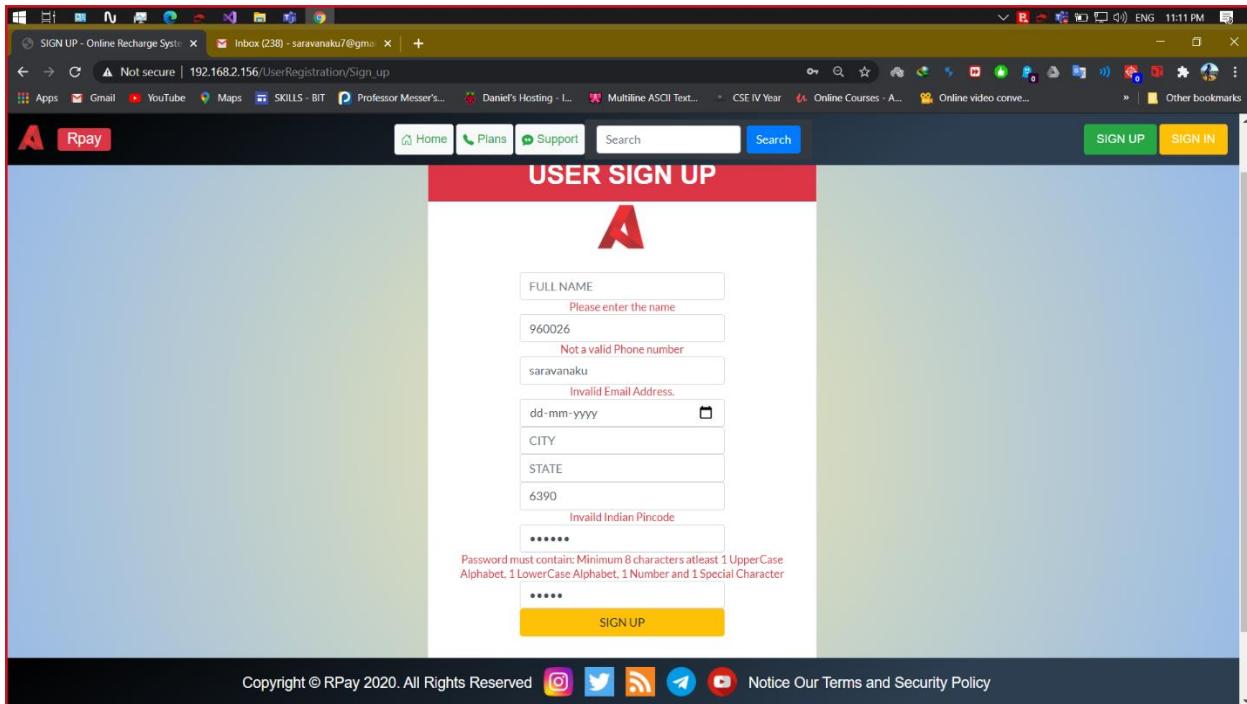
SCREENSHOT 1.4: Home (Recharge Plans)

The screenshot shows the 'Recharge Plans' section for Airtel. It displays a table of 13 different Airtel recharge plans, each with a unique name, type, description, amount, and validity period. The table is presented in a light blue grid against a white background.

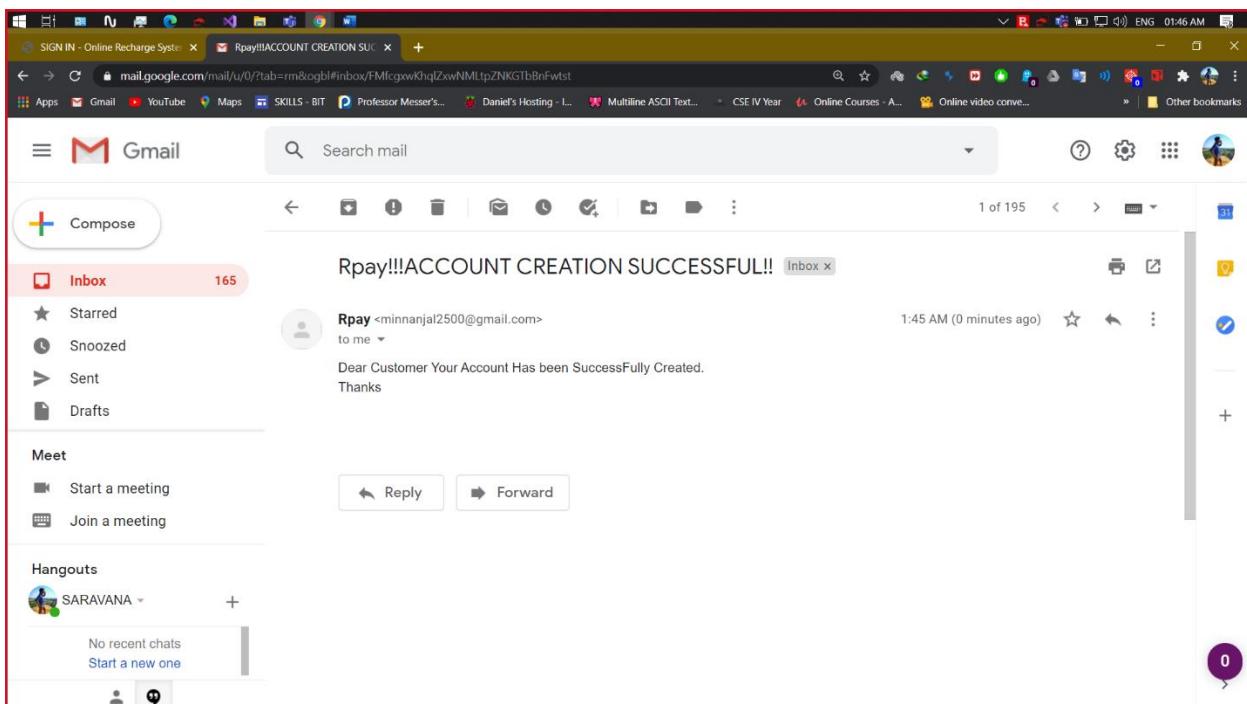
operator_name	plan_name	plan_type	plan_description	amount	validity
Airtel	Airtel 1 GB/DAY Packs	Popular Plans	Rs.129 Truly Unlimited Calls	129	28
Airtel	Airtel 1.5 GB/DAY Packs	Popular Plans	Rs.289 Truly Unlimited Calls	289	28
Airtel	Airtel 2 GB/DAY Packs	Popular Plans	Rs.349 Truly Unlimited Calls	349	28
Airtel	Airtel 3 GB/DAY Packs	Popular Plans	Rs.448 Truly Unlimited Calls	448	28
Airtel	Airtel 1000 Talktime	Top-Up	Rs 960 Talktime	1000	365
Airtel	Airtel 500 Talktime	Top-Up	Rs 480 Talktime	500	365
Airtel	Airtel 100 Talktime	Top-Up	Rs 82 Talktime	100	28
Airtel	Airtel 20 Talktime	Top-Up	Rs 15 Talktime	20	28
Airtel	Airtel 10 Talktime	Top-Up	Rs 7 Talktime	10	28
Airtel	Airtel Xstream 1	4G Data Voucher	250GB & Airtel Xstream	1208	240
Airtel	Airtel Xstream 2	4G Data Voucher	120GB & Airtel Xstream	1004	120
Airtel	Airtel Work from Home packs 1	4G Data Voucher	Unlimited 50 GB	251	30

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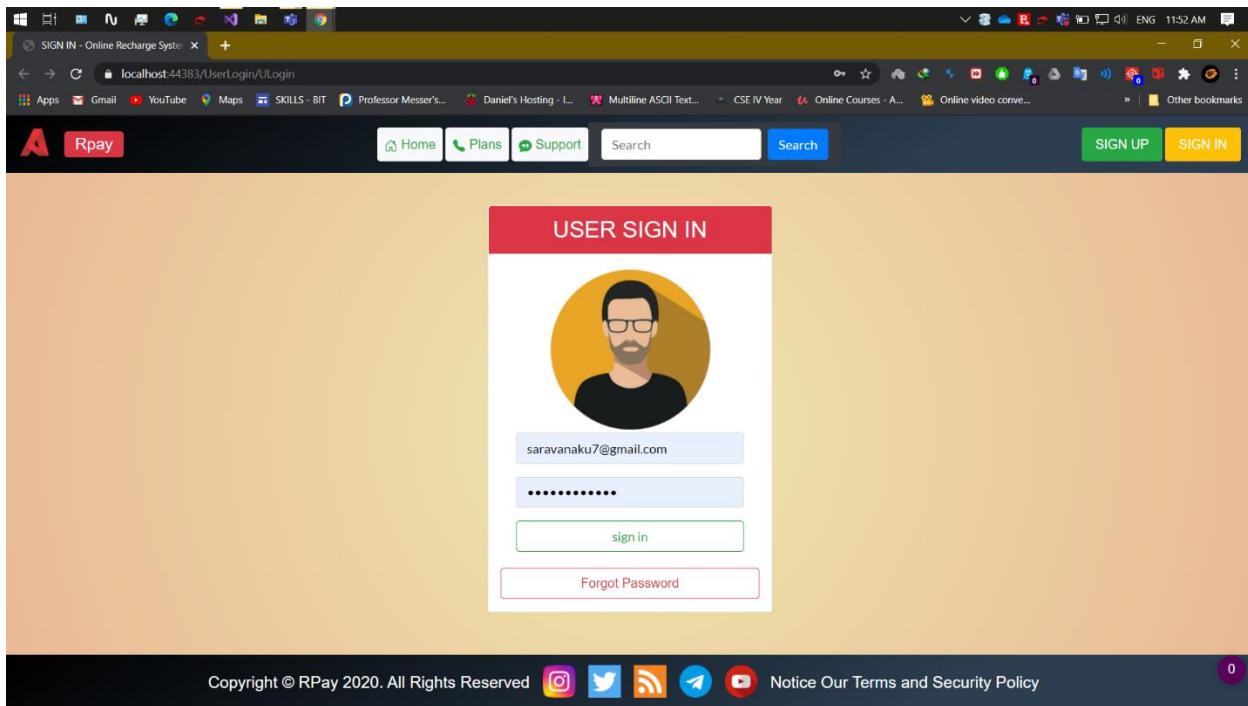
SCREENSHOT 2.1: User Signup



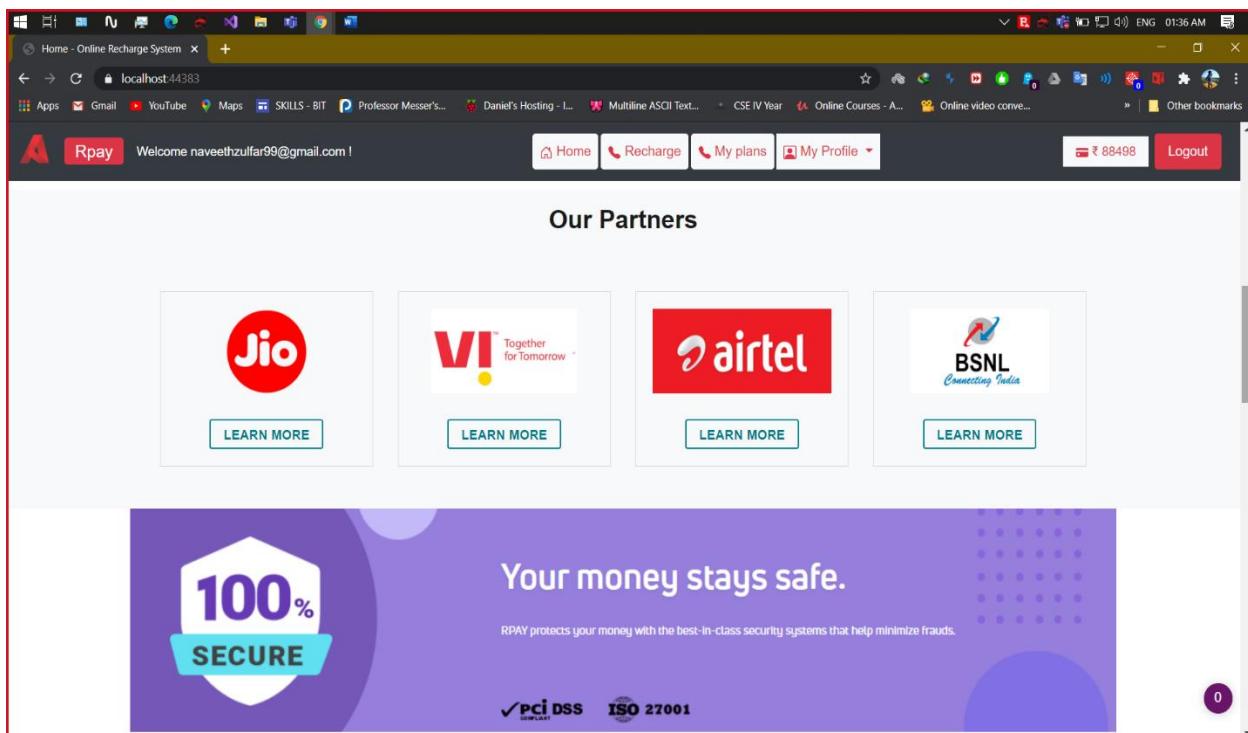
SCREENSHOT 2.2: User Signup – Account creation successful mail



SCREENSHOT 3: User SignIn



SCREENSHOT 4: User Home



SCREENSHOT 5.1: Recharge

The screenshot shows a web browser window titled "Recharge Now - Online Recharge". The URL in the address bar is "localhost:44383/RechargeMVC/RechargeView". The page has a yellow header with the title "Recharge". Below the header is a form with the following fields:

PHONE NUMBER	9600267700
NETWORK OPERATOR	Airtel
PLAN CATEGORY	Popular Plans
PLAN NAME	Airtel 2 GB/DAY Packs
AMOUNT	349

Below the form is a green "RECHARGE" button. At the bottom of the page is a table showing available recharge plans for Airtel:

NETWORK OPERATOR	PLAN CATEGORY	PLAN NAME	PLAN BENEFITS	VALIDITY	AMOUNT
Airtel	Popular Plans	Airtel 1 GB/DAY Packs	Rs.129 Truly Unlimited Calls	28	129
Airtel	Popular Plans	Airtel 1.5 GB/DAY Packs	Rs.289 Truly Unlimited Calls	28	289
Airtel	Popular Plans	Airtel 2 GB/DAY Packs	Rs.349 Truly Unlimited Calls	28	349
Airtel	Popular Plans	Airtel 3 GB/DAY Packs	Rs.448 Truly Unlimited Calls	28	448

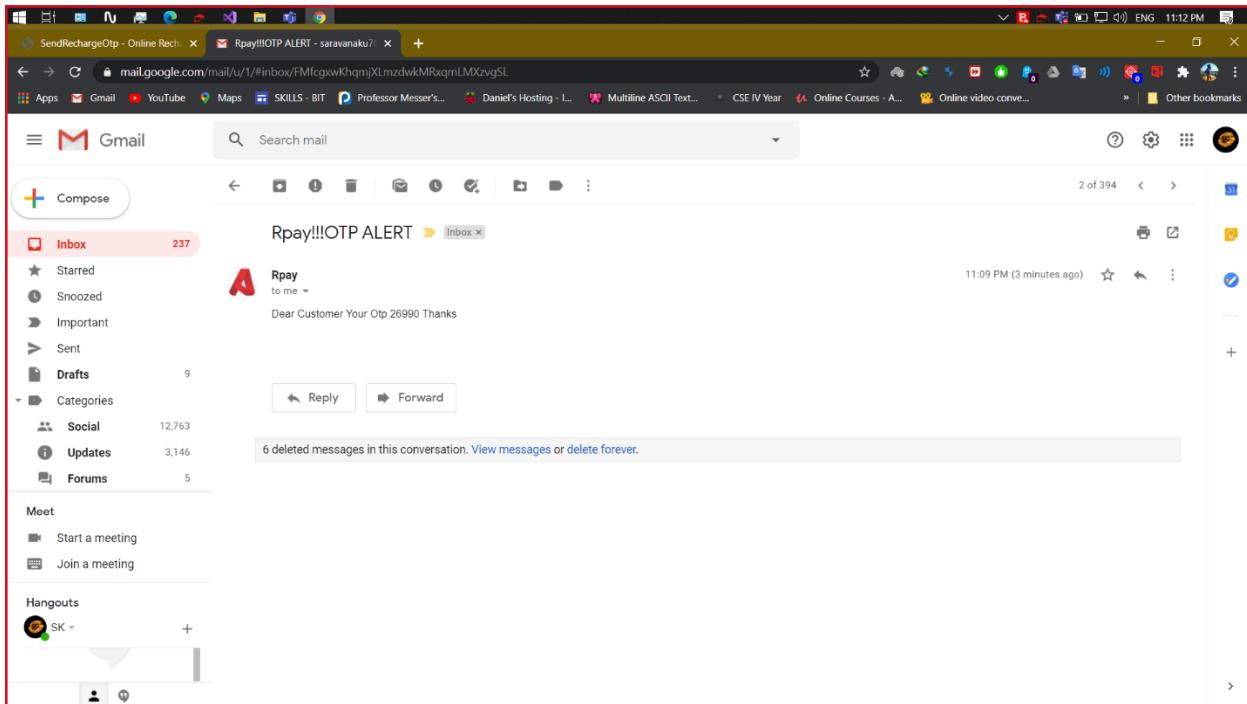
At the very bottom of the page, there is a copyright notice: "Copyright © RPay 2020. All Rights Reserved" followed by social media icons for Instagram, Twitter, RSS, and YouTube, and links to "Notice Our Terms and Security Policy".

SCREENSHOT 5.2: Recharge Plans

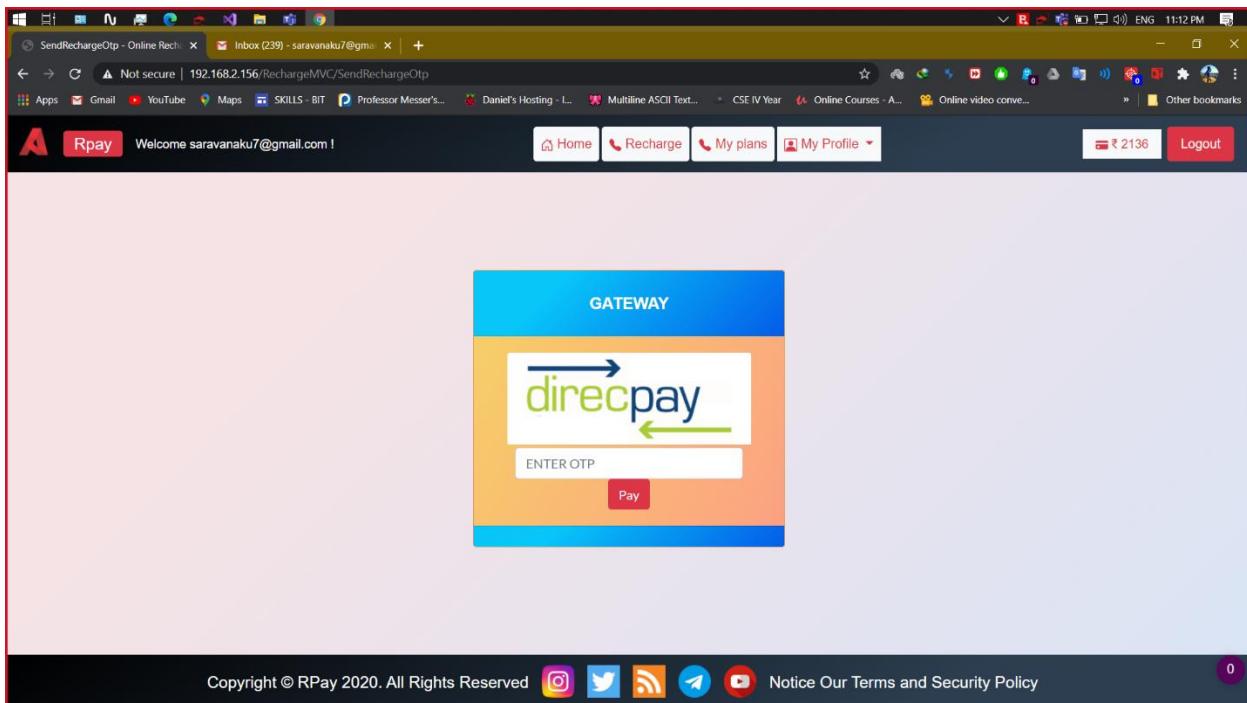
The screenshot shows a web browser window titled "Recharge Now - Online Recharge". The URL in the address bar is "localhost:44383/RechargeMVC/RechargeView". The page has a yellow header with the title "Recharge". Below the header is a table showing available recharge plans for Airtel:

NETWORK OPERATOR	PLAN CATEGORY	PLAN NAME	PLAN BENEFITS	VALIDITY	AMOUNT
Airtel	Popular Plans	Airtel 1 GB/DAY Packs	Rs.129 Truly Unlimited Calls	28	129
Airtel	Popular Plans	Airtel 1.5 GB/DAY Packs	Rs.289 Truly Unlimited Calls	28	289
Airtel	Popular Plans	Airtel 2 GB/DAY Packs	Rs.349 Truly Unlimited Calls	28	349
Airtel	Popular Plans	Airtel 3 GB/DAY Packs	Rs.448 Truly Unlimited Calls	28	448
Airtel	Top-Up	Airtel 1000 Talktime	Rs 960 Talktime	365	1000
Airtel	Top-Up	Airtel 500 Talktime	Rs 480 Talktime	365	500
Airtel	Top-Up	Airtel 100 Talktime	Rs 82 Talktime	28	100
Airtel	Top-Up	Airtel 20 Talktime	Rs 15 Talktime	28	20
Airtel	Top-Up	Airtel 10 Talktime	Rs 7 Talktime	28	10
Airtel	4G Data Voucher	Airtel Xstream 1	250GB & Airtel Xstream	240	1208
Airtel	4G Data Voucher	Airtel Xstream 2	120GB & Airtel Xstream	120	1004
Airtel	4G Data Voucher	Airtel Work from Home packs 1	Unlimited 50 GB	30	251
Airtel	4G Data Voucher	Airtel Work from Home packs 2	Unlimited 40 GB	30	201

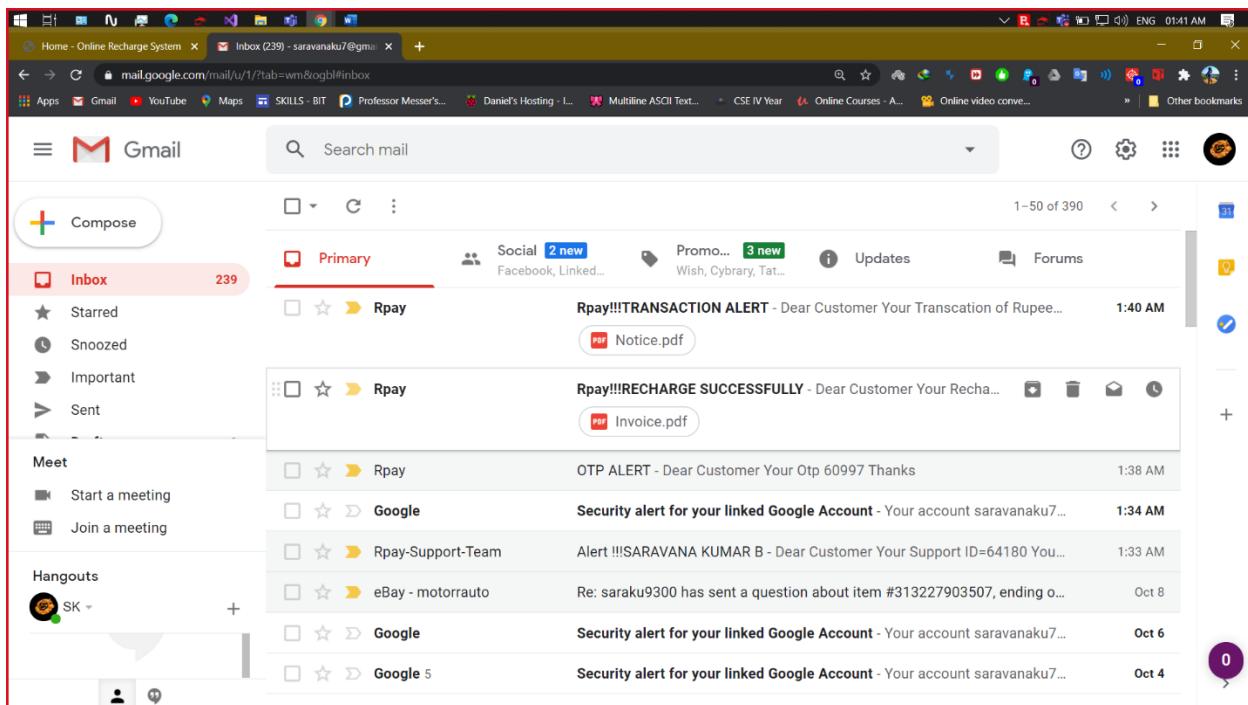
SCREENSHOT 5.3: Recharge OTP Alert Mail



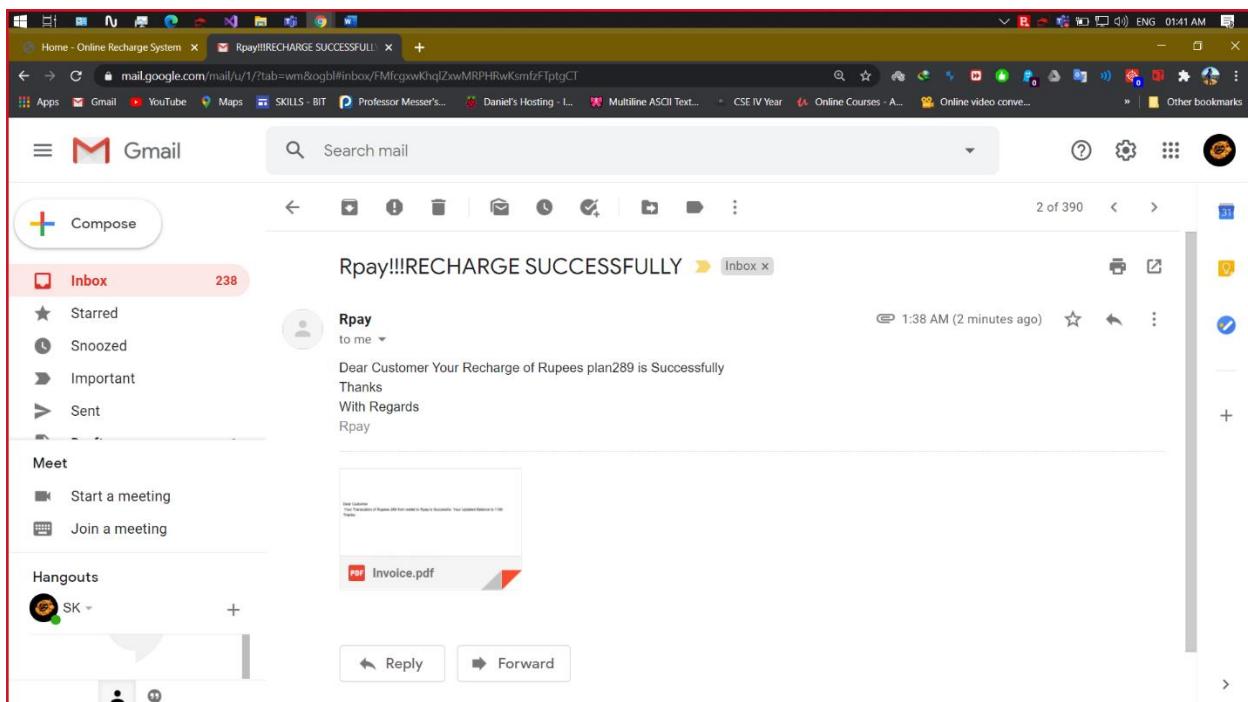
SCREENSHOT 5.4: Recharge OTP



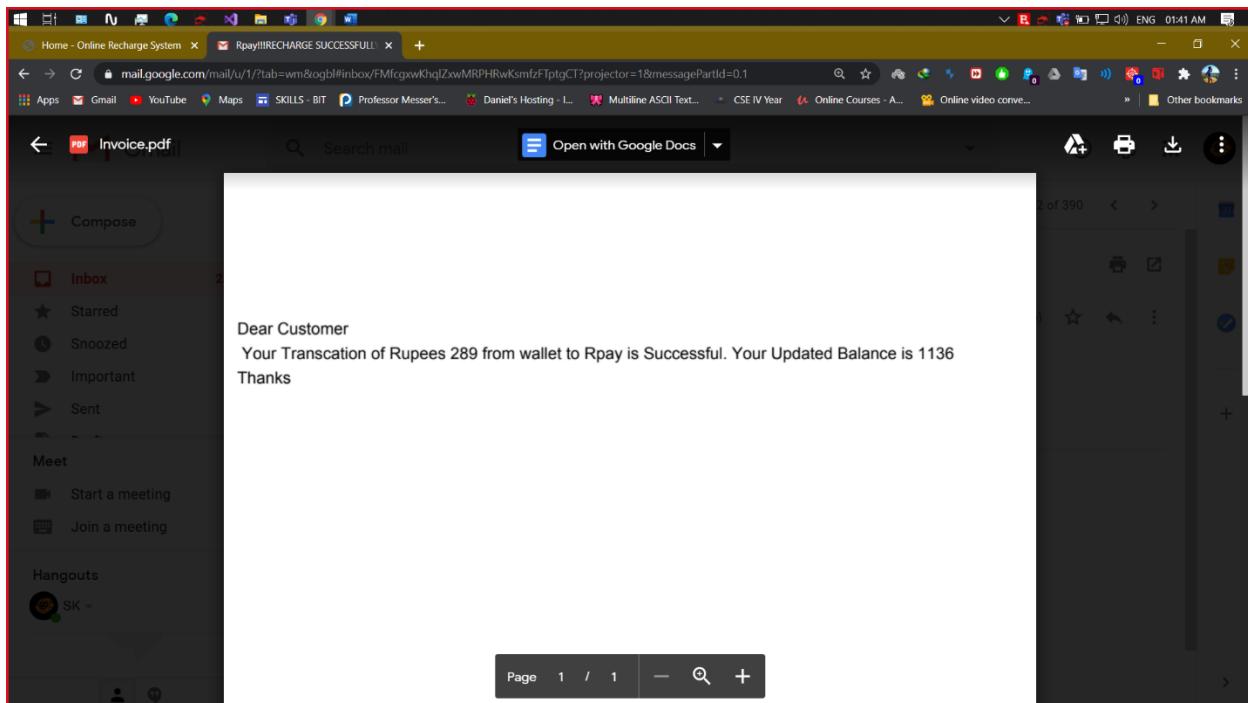
SCREENSHOT 5.5: Recharge Mail Confirmation



SCREENSHOT 5.6: Home Recharge success Mail



SCREENSHOT 5.7: Recharge Mail Invoice



SCREENSHOT 6: My Plans

The screenshot shows the 'My Plans' section of the 'Online Recharge System'. The 'CURRENT PLAN' table displays the following information:

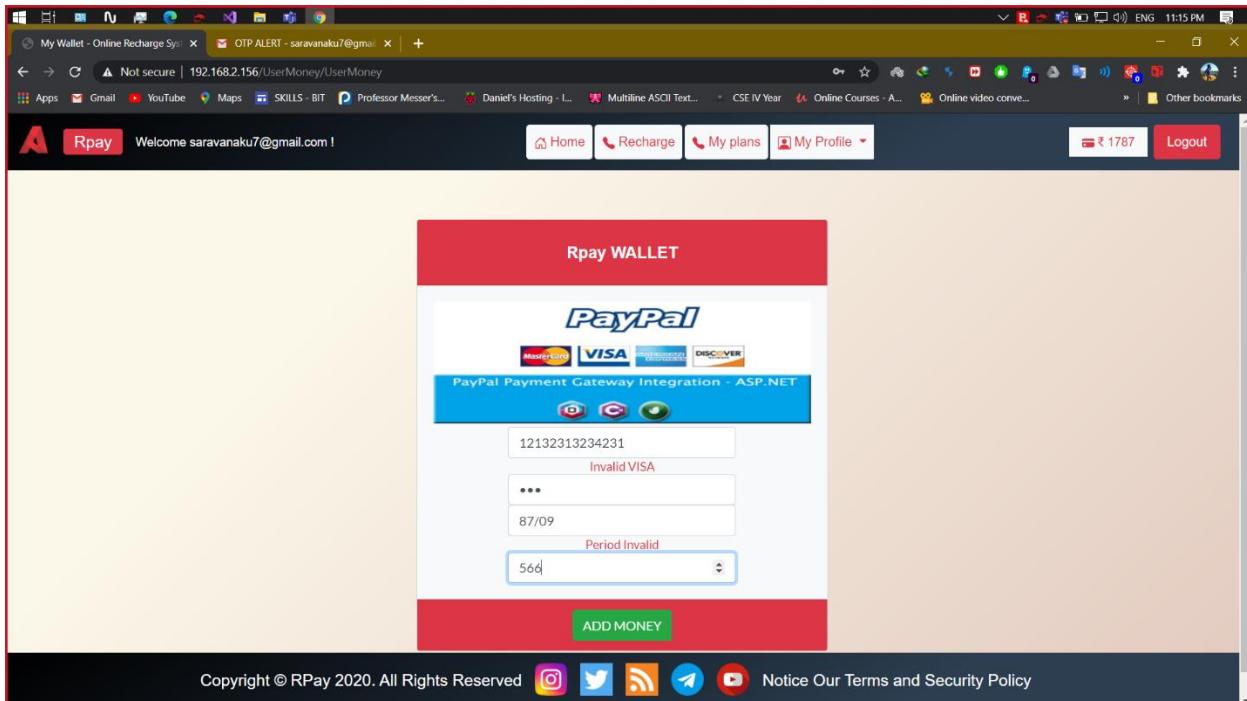
#	Network Operator	Phone Number	Plan Name	Plan Benefits	Amount	Validity	Recharged Date
1	BSNL	987543210	BSNL Work from Home packs 3	Unlimited 40 GB	151	30	10/14/2020 1:34:18 PM

The 'Transaction History' table shows previous recharge transactions:

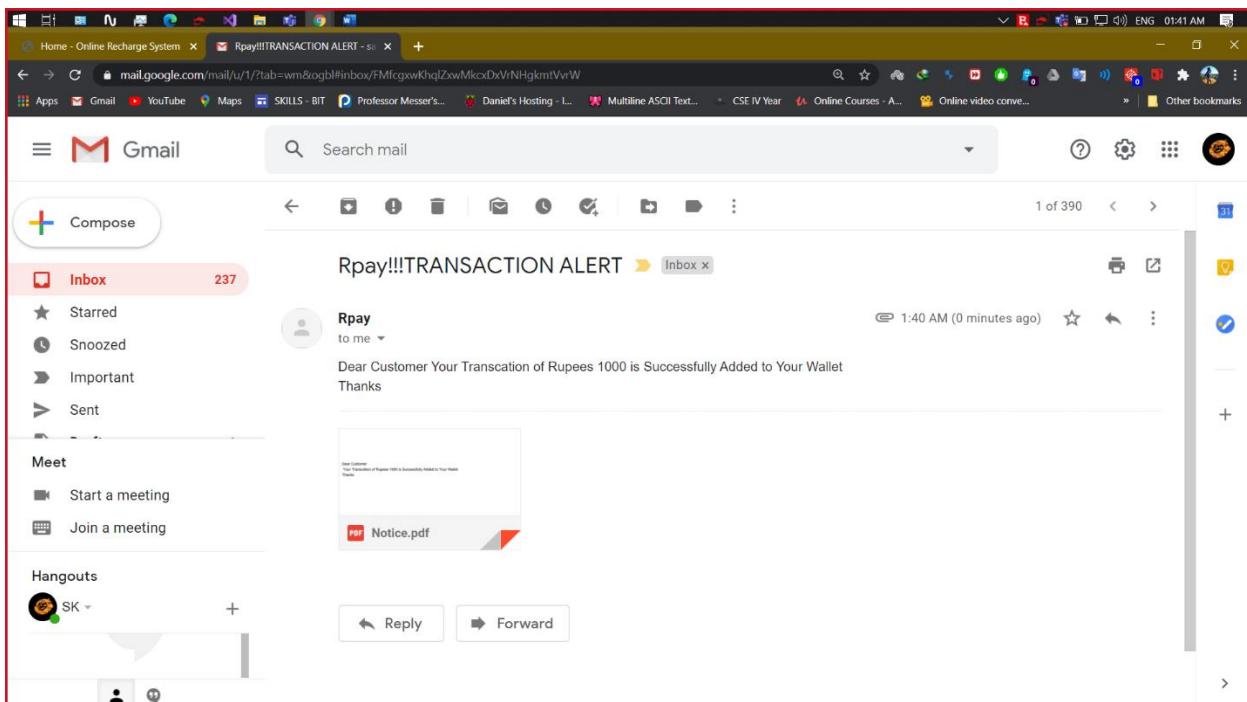
Operator Name	Phone Number	Plan Name	Plan Benefits	Amount	Validity	Recharged Date	Status
Airtel	9600267700	Airtel 2 GB/DAY Packs	Rs.349 Truly Unlimited Calls	349	28	10/15/2020 11:13:12 PM	Success
Airtel	9600267700	Airtel 1.5 GB/DAY Packs	Rs.289 Truly Unlimited Calls	289	28	10/15/2020 1:38:29 AM	Success
Vodafone	9994366160	Vodafone InFlight Connectivity	700 MB data, 100 mins Outgoing Voice Calls and 100 SMS	999	1	10/14/2020 1:35:50 PM	Success
BSNL	987543210	BSNL Work from Home packs 3	Unlimited 40 GB	151	30	10/14/2020 1:34:18 PM	Success

At the bottom, there is a footer with social media icons and links to 'Notice Our Terms and Security Policy'.

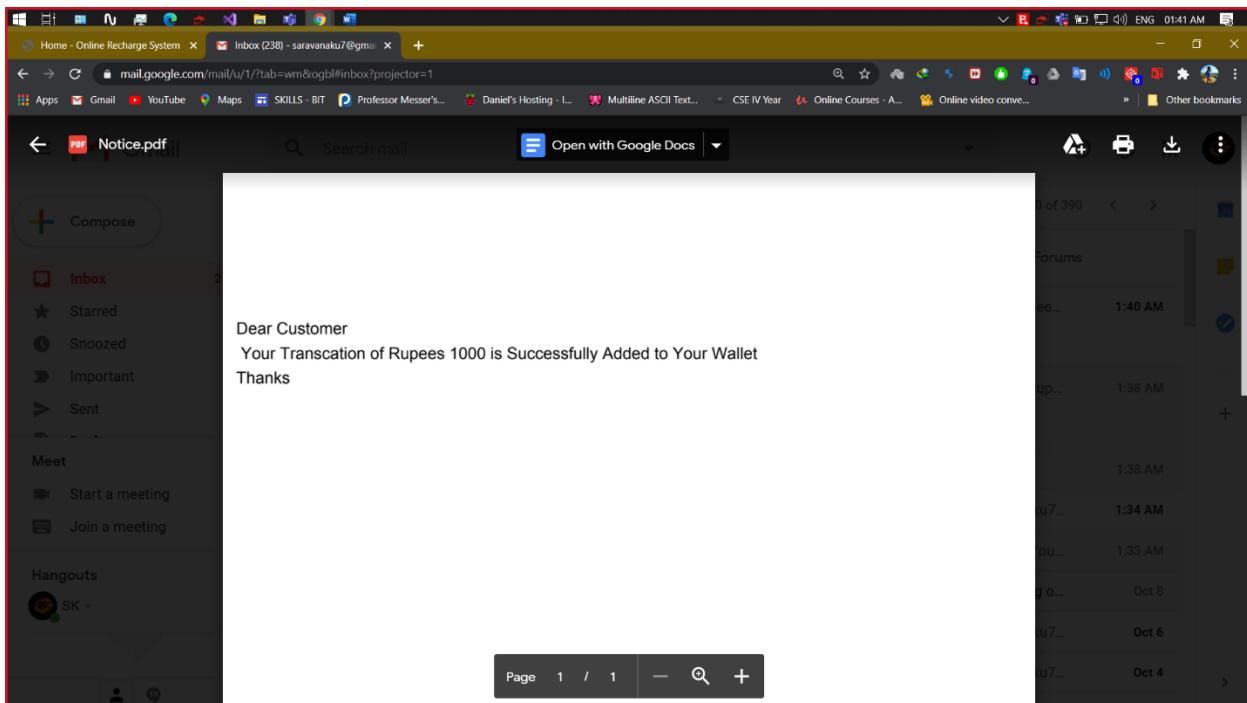
SCREENSHOT 7.1: Add Money to Wallet



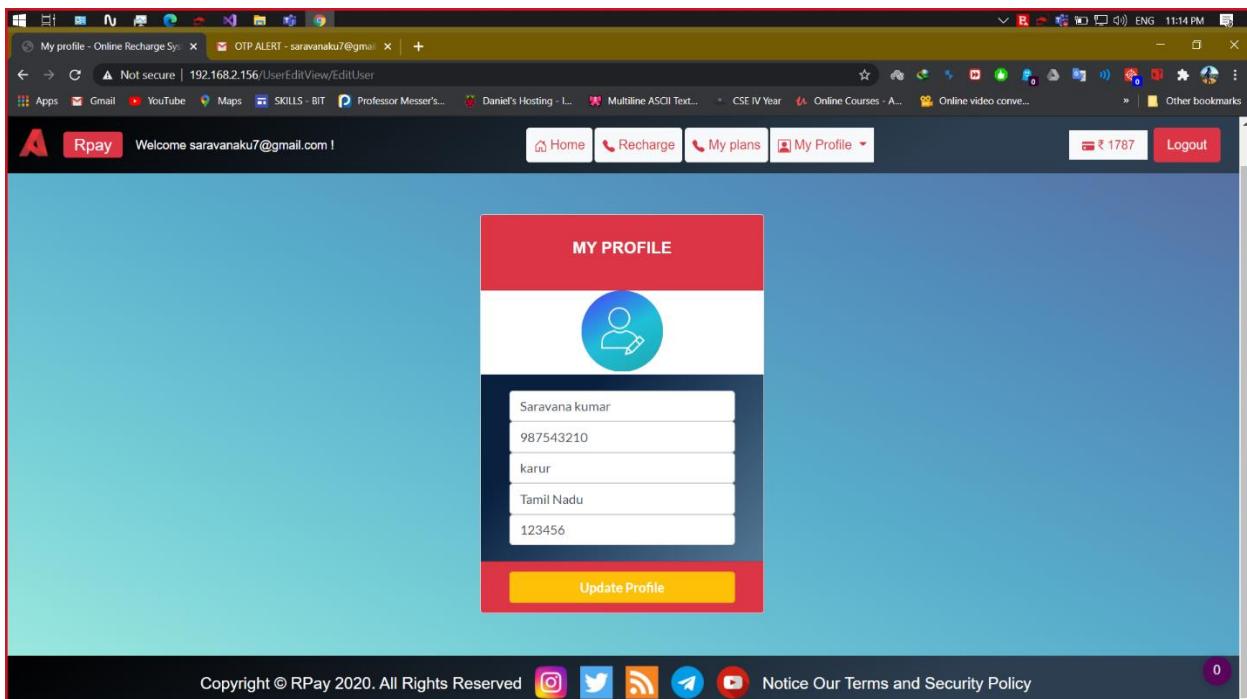
SCREENSHOT 7.2: Add Money to Wallet – mail alert



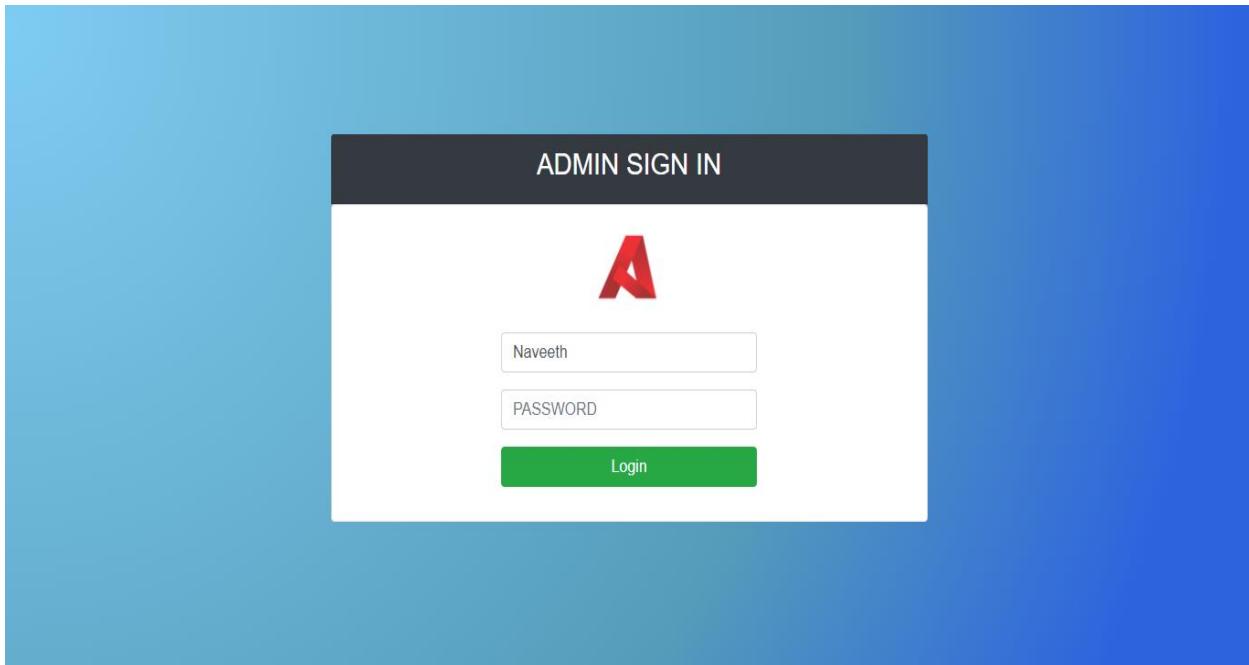
SCREENSHOT 7.3: Add Money to Wallet - mail invoice



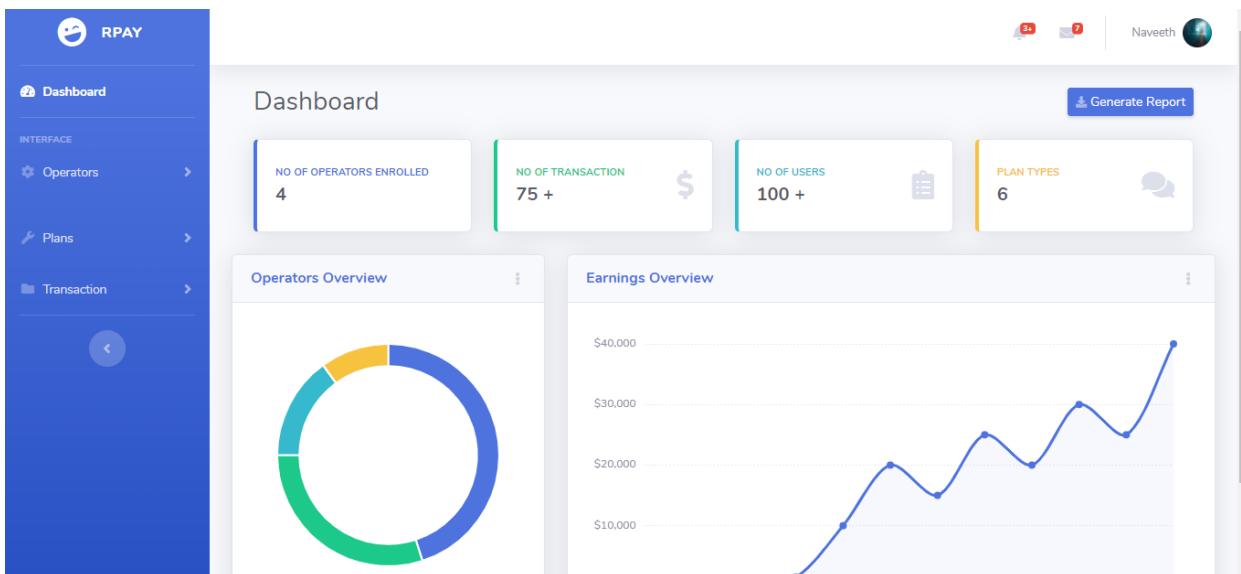
SCREENSHOT 8: User Edit Profile



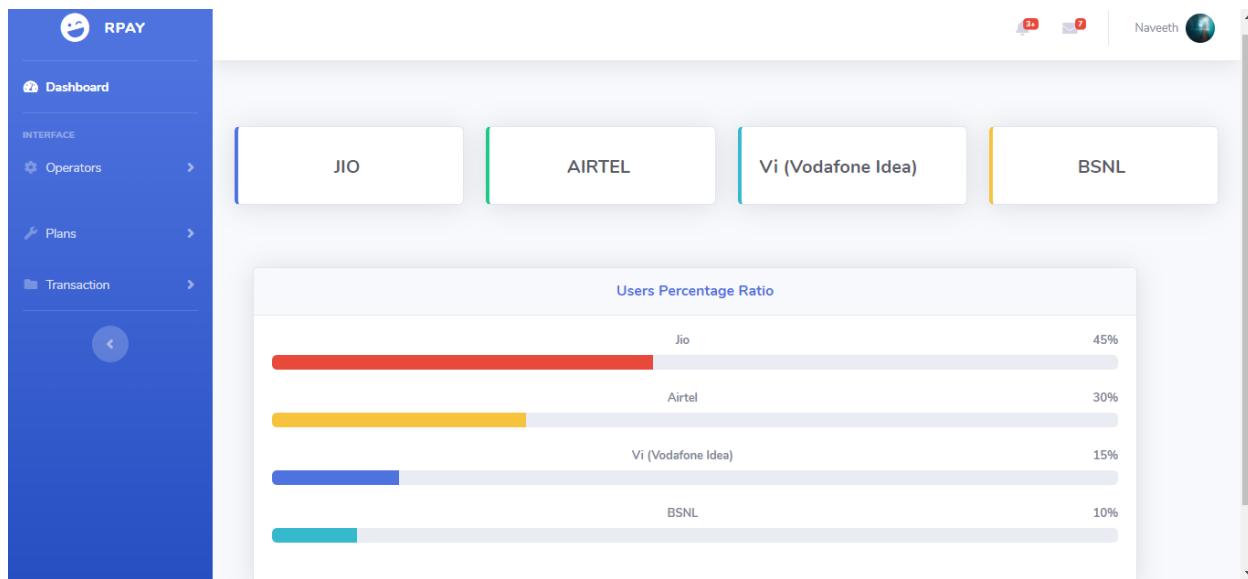
SCREENSHOT 9: Admin Login



SCREENSHOT 10: Admin Dashboard



SCREENSHOT 11: Network Operator Manager



SCREENSHOT 12: Recharge Plans Manager

The screenshot shows a list of recharge plans managed by the system. The left sidebar is identical to Screenshot 11. The main area is titled 'LIST OF PLANS' and contains a search bar and a table with columns for Operator Name, Plan Name, Plan Type, Plan Description, Amount, and Validity.

OPERATOR_NAME	PLAN_NAME	PLAN_TYPE	PLAN_DESCRIPTION	AMOUNT	VALIDITY
Jio	Jio 2 GB/DAY Packs	Popular Plans	Unlimited 112GB & Disney+ Hotstar	598	56
Jio	Jio 1.5 GB/DAY Packs	Popular Plans	Unlimited 131GB & Disney+ Hotstar	777	84
Jio	Jio Long Term	Popular Plans	350 GB UNLIMITED	4999	360
Jio	Jio 3 GB/DAY Packs	Popular Plans	252 GB UNLIMITED	999	84
Jio	Jio 1000 Talktime	Top-Up	Rs 844.46 Talktime	1000	365

SCREENSHOT 13.1: Recharge Transactions Manager

The screenshot shows a web-based application interface for managing recharge transactions. On the left, a vertical sidebar menu is visible with the following items: RPAY logo, Dashboard, INTERFACE, Operators, Plans, and Transaction. The Transaction item is currently selected, indicated by a blue background. The main content area is titled "LIST OF TRANSACTIONS". It features a search bar with "Status..." placeholder text and a magnifying glass icon. Below the search bar is a table with the following columns: TRANSACTION_ID, NAME, OPERATOR_NAME, PLAN_NAME, PHONE_NUMBER, DATE_TIME, and STATUS. The table contains six rows of transaction data:

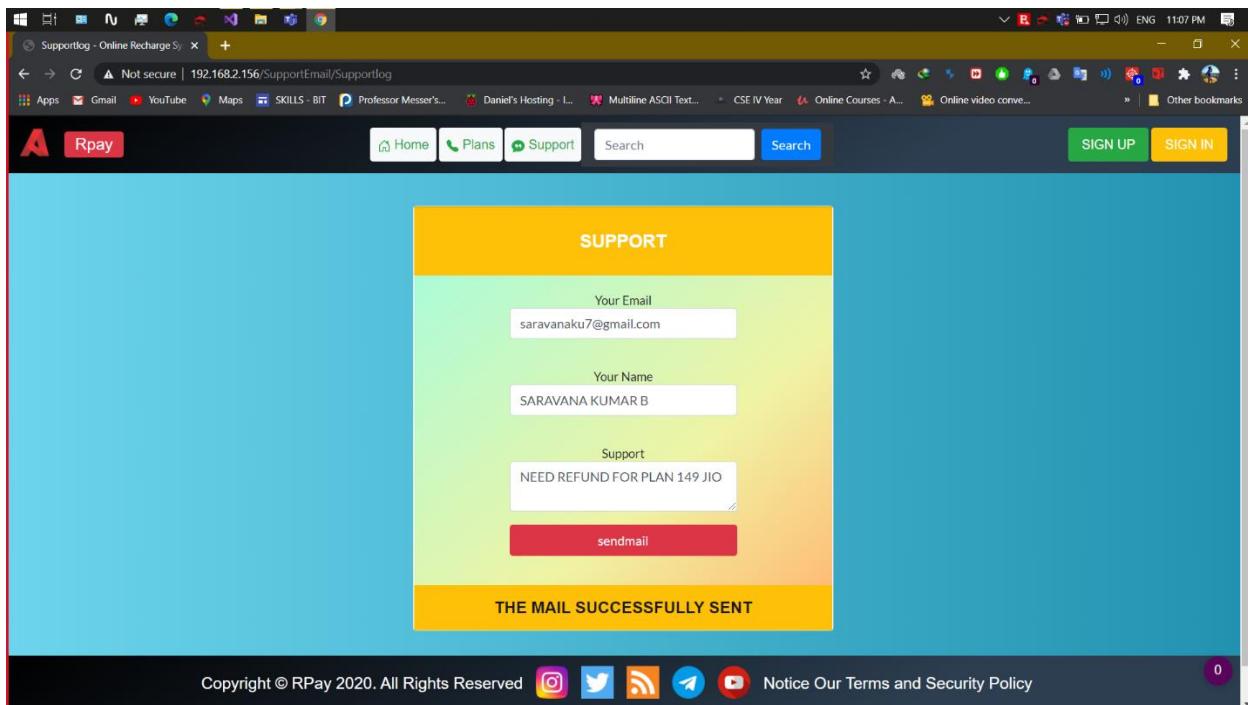
TRANSACTION_ID	NAME	OPERATOR_NAME	PLAN_NAME	PHONE_NUMBER	DATE_TIME	STATUS
1	Rajagurunathan	BSNL	BSNL 1000 Talktime	9994366160	14-10-2020 12:00:00 AM	Success
2	Rajagurunathan	Vodafone	Vodafone Unlimited WiFi Calling	987543210	14-10-2020 12:00:00 AM	Success
3	Rajagurunathan	Airtel	Airtel 1 GB/DAY Packs	9994366160	14-10-2020 12:00:00 AM	Success
4	Rajagurunathan	Airtel	Airtel 10 Talktime	9994366160	14-10-2020 12:54:47 PM	Success
5	Saravana	Airtel	Airtel 1 GB/DAY Packs	987543210	14-10-2020 01:02:53 PM	Success
6	Saravana	Vodafone	Vodafone Value WiFi Calling	9994366160	14-10-2020 01:09:59 PM	Success

SCREENSHOT 13.2: Recharge Transactions PDF Generation

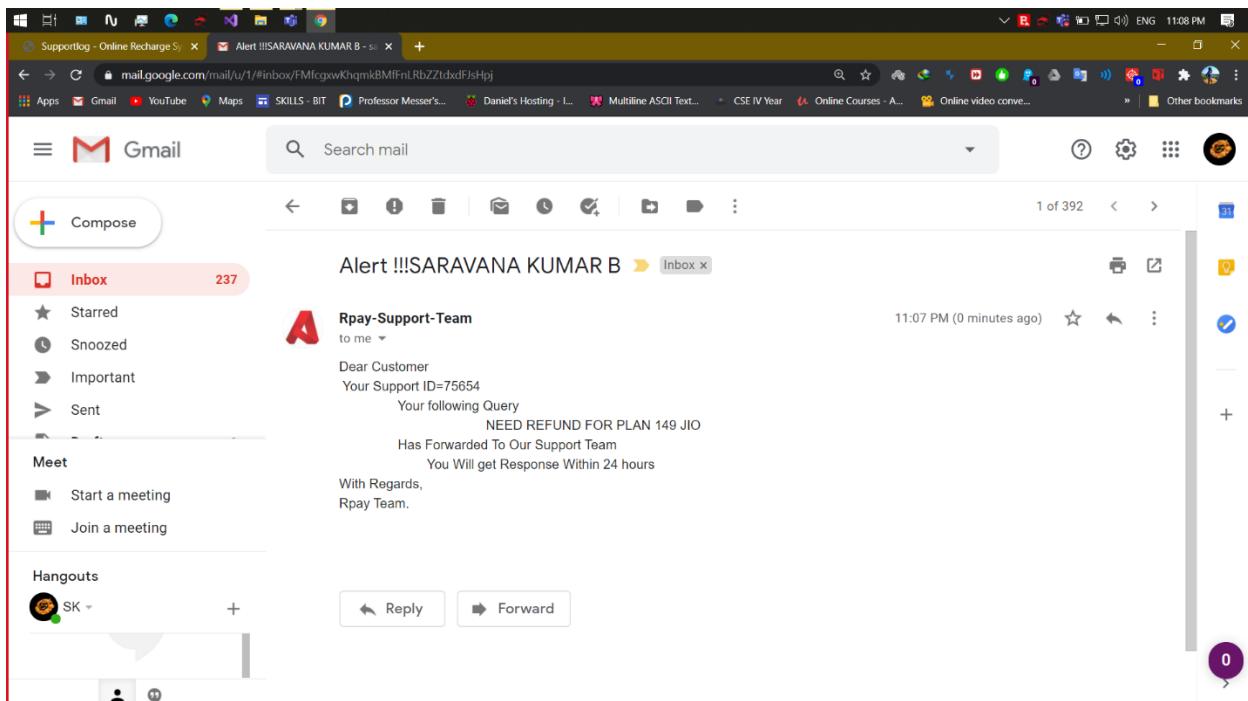
The screenshot shows a PDF document titled "TransactionDetails15.pdf". The page number "1 / 1" is visible at the top right. The content of the PDF is a table titled "Creating Pdf using iTextSharp". The table has columns: Transaction_id, Name, Phone Number, Operator Name, and Plan Name. The table contains 13 rows of transaction data, which is identical to the data shown in Screenshot 13.1. The PDF viewer interface includes standard controls for zooming and printing.

Transaction_id	Name	Phone Number	Operator Name	Plan Name
1	Rajagurunathan	9994366160	BSNL	BSNL 1000 Talktime
2	Rajagurunathan	987543210	Vodafone	Vodafone Unlimited WiFi Calling
3	Rajagurunathan	9994366160	Airtel	Airtel 1 GB/DAY Packs
4	Rajagurunathan	9994366160	Airtel	Airtel 10 Talktime
5	Sarvana kumar	987543210	Airtel	Airtel 1 GB/DAY Packs
6	Sarvana kumar	9994366160	Vodafone	Vodafone Value WiFi Calling
7	Rajagurunathan	9994366160	Airtel	Airtel Xstream 1
8	Rajagurunathan	987543210	Vodafone	Vodafone Work from Home packs 3
9	Sarvana kumar	987543210	BSNL	BSNL Work from Home packs 3
10	Sarvana kumar	9994366160	Vodafone	Vodafone InFlight Connectivity
11	Naveeth ZA	9600267700	Airtel	Airtel Unlimited WiFi Calling
12	Naveeth ZA	9080638056	BSNL	BSNL Unlimited WiFi Calling
13	Sarvana kumar	9600267700	Airtel	Airtel 1.5 GB/DAY Packs

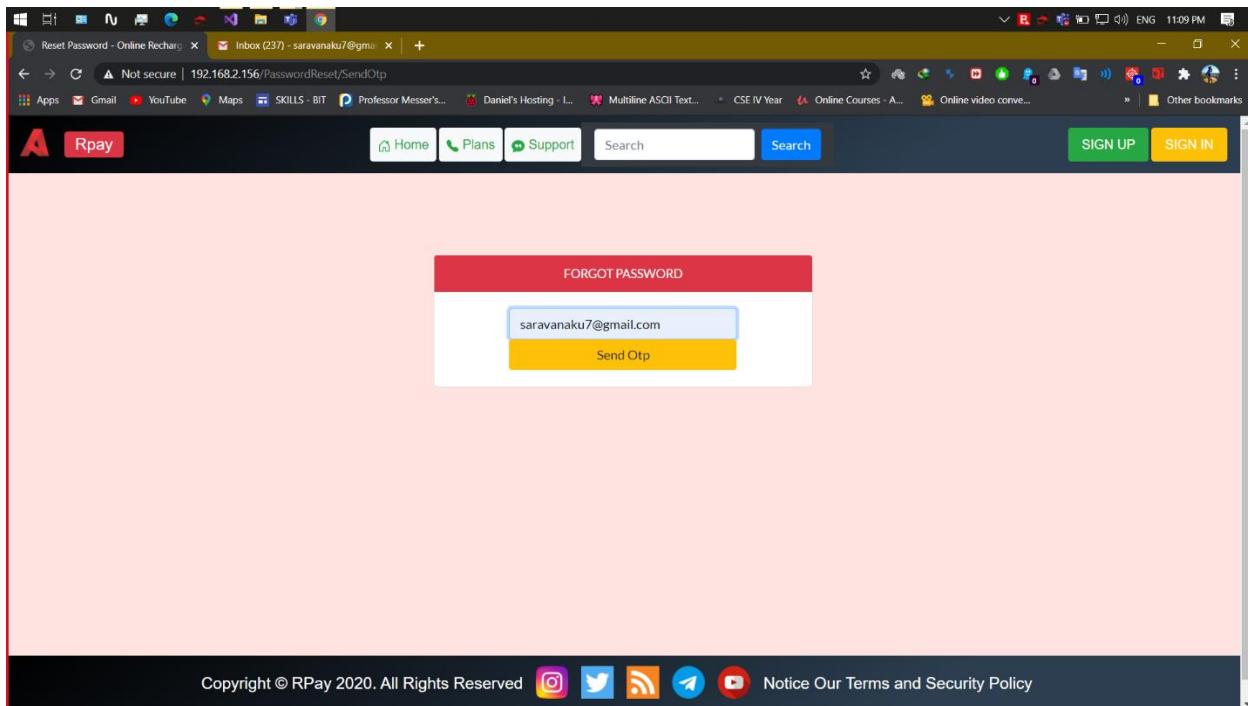
SCREENSHOT 14.1: Customer Support



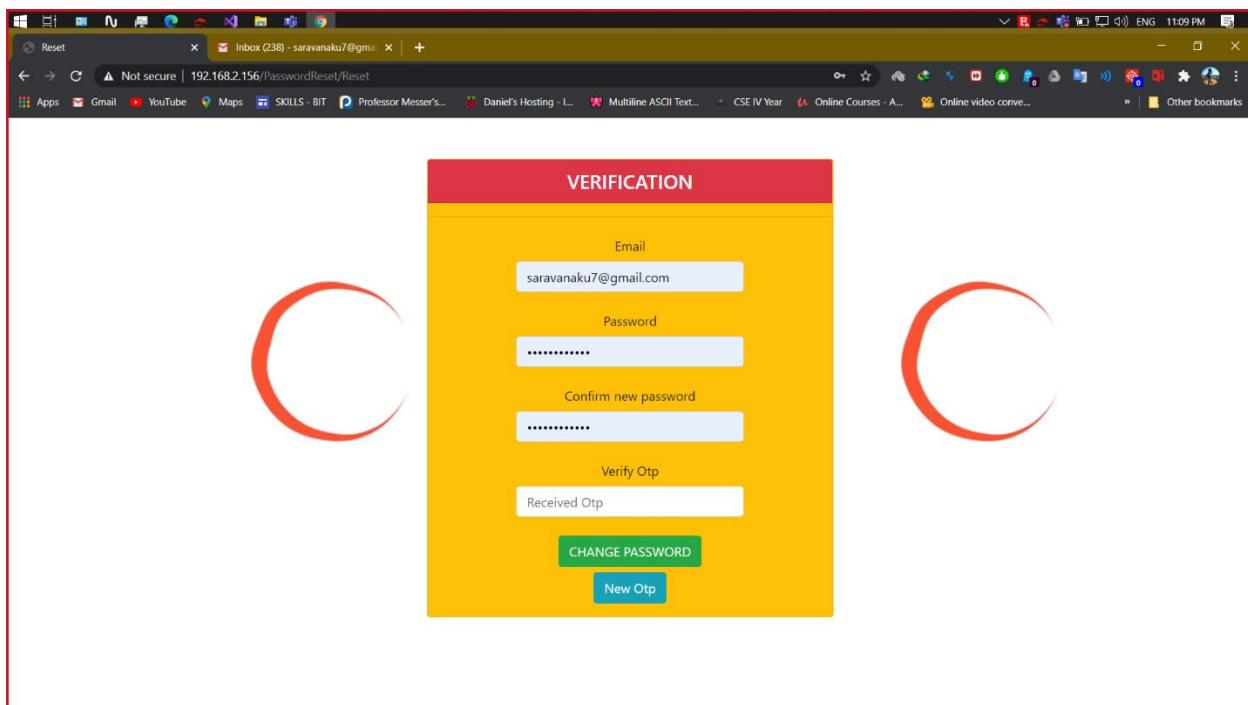
SCREENSHOT 14.2: Customer Support Mail



SCREENSHOT 15.1: Forgot Password (Send OTP)



SCREENSHOT 15.2: Forgot Password (New Password)



ROLES AND RESPONSIBILITIES

SCREENSHOT WISE:

Screen shot No	Page Name	Frontend	Backend
1	Home	Naveeth, Saravanakumar	Saravanakumar
2	User Signup	Naveeth, Saravanakumar	Saravanakumar
3	User Login	Saravanakumar	Rajagurunathan, Saravanakumar
4	User Home	Naveeth, Saravanakumar	Saravanakumar
5	Recharge	Rajagurunathan	Rajagurunathan, Saravanakumar
6	My Plans	Rajagurunathan	Rajagurunathan
7	Add Money to wallet	Saravanakumar	Saravanakumar
8	User Edit Profile	Rajagurunathan	Rajagurunathan
9	Admin Login	Rajagurunathan	Rajagurunathan
10	Admin Dashboard	Naveeth	Naveeth
11	Network Operator Manager	Naveeth	Naveeth
12	Recharge Plans Manager	Naveeth	Naveeth
13	Recharge Transaction Manager	Rajagurunathan	Naveeth
14	Customer Support	Rajagurunathan	Saravanakumar
15	Forgot Password	Saravanakumar	Saravanakumar
	Database Management	Rajagurunathan	

MODULE WISE:

1) Member Name: Naveeth Z A (Team Leader)

- Home - Front End
- User Signup - Front End
- User Home - Front End
- Admin Login - Front End & Back End
- Student Profile - Front End & Back End
- Admin Dashboard - Front End & Back End
- Network Operator Manager- Front End & Back End
- Recharge Plans Manager - Front End & Back End
- Recharge Transactions Manager - Back End
- Integration

2) Member Name: Rajagurunathan Manikandan

- Database Creation & Management
- Query Management
- My Plans – Front End & Back End
- Recharge - Front End & Back End
- Edit Profile – Front End & Back End
- User Login – Back End
- Customer Support – Front End
- Admin Login - Front End & Back End
- Recharge Transaction Manager – Front End
- Integration
- Dry Run

3) Member Name: Saravanakumar Balasubramaniyam

- Home – Front End & Back End
- User Signup– Front End & Back End
- User Login – Front End & Back End
- User Home– Front End &Back End
- Recharge – Back End (Email API Authentication -SMTP)
- Add Money to Wallet- Front End & Back End
- Customer Support – Back End
- Forgot Password - Front End &Back End
- Integration
- Session Management
- Online Database Hosting
- Web Hosting

PROJECT SOURCE CODE LINK

Onedrive:

https://kovailtd-my.sharepoint.com/:f/g/personal/syed_haroon_kovai_co/EIYOyjneyfNKu3-4wZGwAwUBInH8YMoGF1Me1nmHRXTLOg?e=hlid6n