SeAPorts: An Online Reservation System for Ships

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ABSTRACT

The rising number of commuters affects the condition of the public transportation system that they are using. Port congestion is one of the problems of each port every year. It happens when port clients such as carriers, shippers, and passengers meddle with each other in the utilization of port resources. The researchers came up with the study entitled "SeAPorts: An Online Reservation System for Ships", a web application that provides the schedule of the trips for a certain day. It is an online reservation system where the user must be connected to the internet in order to use the website. The target users of this web application are the passengers who do not have enough time to go to the ports to buy tickets. The website will help them choose ships easier and faster than the usual, and allows them to reserve ships easily.

Keywords: *Online Reservation System, Seaport Reservation, Ship Reservation*

1.0 INTRODUCTION

One of the articles of The Manila Times last October 27, 2014 disclosed that "Port congestion is a global problem." It appeared that the Port of Manila was not the only major port in the world experiencing the issue of "port congestion", and the reasons for it might be the ability of the responsible authorities to solve.

As indicated by Ford Motor Company overview, three out of ten Filipinos considered their commute as the worst part of their day. Because of this, Filipinos were considered to be one of the most disappointed

commuters in the world. According to the statistics given by the Philippine Ports Authority, almost five out of ten persons said that they have experienced port congestion especially in peak season.

A passenger who took a vacation in Naujan, Oriental Mindoro stated that their family has arrived past 8 am and they were very disappointed because the next trip will be at 10 am. Most of them were vacationists from different parts of the country.

Port congestion happens when port clients such as carriers, shippers, and passengers meddle with each other in the utilization of port resources. Port blockage might be deliberate or unexpected. Unintentional interference occurred in the normal utilization of port resources, when the trips schedule was delayed because of unexpected circumstances. Most issue of the water transportation commuters was the availability of trips during low season especially during rainy seasons.

SeAPorts: An online reservation system for ships is a web application where you can see the schedule of the trips for a certain day. It is an online reservation system where the user must be connected to the internet in order to use the website.

The users of this web application are the passengers who do not have enough time to go to the ports to buy a ticket. The proposed website will help them choose ships easier and faster than the usual and it includes reservation in ships.

Also, the researchers included the link of an online weather forecast for the passengers to know the updated weather conditions.

1.1 OBJECTIVES OF THE STUDY

The study was intended to attain the following objectives:

1. To develop an online reservation system for ships
2. To provide a means of reservation system to passengers in any sea ports.
3. To use ASP.net in the development of the online reservation system.

2.0 LITERATURE REVIEW

Web Application

A web application or simply “web app” is a program or software that keeps running on a web server. It is not like the desktop applications that is launched by the operating system, because it must be accessed through a web browser.

Web applications have a few points of interest over work area applications. Since they keep running inside internet browsers, developers don’t have to create web

applications that keeps running in Chrome will take a shot at the two Windows and OS X. Designers don't have to circulate programming updates to clients when the web application is refreshed. By refreshing the supplication on the server, all clients approach the refreshed adaption.

Some of its examples are:

Philippine Airlines (PAL) is the national carrier of the Philippines that is based in Manila. With hubs at Ninoy Aquino International Airport and Mactan-Cebu International Airport, PAL uses a fleet of narrow and wide airbus to operate a network services within the Philippines as well throughout the Asia Pacific, the Middle East, North America, and Europe. [6]

Cebu Pacific Air (PSE: CEB) is the largest carrier in the Philippine air transportation industry, offering low-cost services to more destinations and routes with higher flight frequency within the Philippines than any other airline. CEB currently offers flights to 37 Philippine and 26 international destinations, spanning Asia, Australia, The Middle East, and USA. [3]

Skyscanner compares hundreds of thousands of sites across online travel agents, airlines, hotels, and car hire operators to give the cheapest flight ticket prices, cheapest hotel prices, and cheapest car hire rates to the Filipinos. [4]

The common thing about these web applications is the reservation system. Basically, an online reservation system will give you the chance to acknowledge bookings for your services on the web.

Public Transportation

Public transport will be the transport of passengers by group travel frameworks accessible for use by the public, regularly managed on a schedule, worked on built up courses, and that charge a posted expense for each trip. City buses, trolleybuses, trams (or light rail) and passenger trains, rapid transit such as metro/tram/underground, and ferries are some examples of public transport.

Public transportation furnishes individuals with versatility and access to business, group assets, medicinal care, and recreational opportunities in groups across America. It benefits the individuals who ride, and in addition the individuals who have no other choice. Public transit gives a fundamental portability administration to these people and to all others without access to a car.

Uber is a valuable, modest, and innocuous taxi service. It is a contract with a confined driver to lift you up and take you to

your destination stage with a tap by using any cell phone gadget. A nearby driver will reach to lift you up within minutes. It gives exceptional pay, enables you to work for yourself, and even get tips. [1] It is also synonymous with taxis, and to drivers, it is essentially a referral benefit.

Marine Transportation System

The Marine Transportation System, or MTS, comprises of waterways, ports, and between modular land-side associations that enable the different modes of transportation to move people and merchandise to, from, and on the water. [11]

Marine transportation plays a vital part in the island areas for inter-island travel needs utilizing sea-cargo transportation. [10]

Some examples of marine transportation or shipping lines include:

Direct Ferries is a multi-stage fair-minded ship ticketing administration offering a brisk and simple approach to look, think about and book 1000's of planned ship intersections to practically any ship port in Europe with administrations likewise accessible all through Africa, Asia, Australia, North America and South America.

A worldwide organization with workplaces all over the world, Direct Ferries is available in various markets with an item confined for ship voyagers in the US, UK, Ireland, France, Germany, and many more. [8]

2Go Travel is one of the biggest, premier land/sea-travel providers in the Philippines. The company offers a wide determination of inn housing/ administrations, tours and visits, with the ease of land/sea travel. By consolidation consistent travel understanding, with amazing goals, and the advantage of inn lodging, the company plans to redefine travel. [2]

SuperCat Fast Ferry Corporation is a part of 2Go Travel. It operates 7 vessels in 7 ports around the Philippines. It is a sister company of SuperFerry and CebuFerry. [14]

Starlite Ferries is a Manila-based logistics company that is based in Batangas City, Batangas. It is a passenger ferry company that is owned and operated by Chelsea Logistics Holdings Corp. [13]

Montenegro Shipping Lines, Inc. (MSLI) operates passenger, cargo and roll-on/roll-off (RoRo) for vehicular traffic travelling between islands of the Philippines for vehicular traffic. It is a domestic shipping line with headquarters at the port of Batangas City. [12]

Archipelago Philippine Ferries Corporation (APFC) serves passenger and cargo routes serving select seaports in the Philippines with its fleet of Catamaran RoRo ferries. It is based in Muntinlupa, Metro Manila, Philippines that operates in ports and terminals. [5]

3.0 METHODS

3.1 Research Method

The researchers explained the purpose and goal of the project. They justified the feasibility study by creating a detailed development process and procedures. With a systematized and organized scheme of progress, the project will be able to attain its aim and objective.

Researchers clarified the source and objective of the project. They gave reasons for the risk feasibility by providing a thorough development of the system. Escorted by a systematized plan, the project achieved its goal.

On the development phase of the project, the researchers encountered some unexpected situations that can affect the progress of the project like in reservation process. With this, researchers constructed options and changes for the betterment of the project. The researchers used the web development life cycle since we focused on creating a web application. WDLC (Web Development life cycle) is a new methodology being proposed specifically for the development of web applications. This methodology is grounded to create structured process for the highly unstructured problem of web application development. This method is a hybrid of two former methodologies known as System Development Life Cycle and Prototyping. The WDLC uses components from each methodology, combining them into new approach that will decrease the time of development, add structure to unstructured problem, and keep the users involved throughout the entire development life cycle. [9]. Even though, the Web Development Life Cycle (WDLC) is very similar to the Systems Development Life Cycle (SDLC) and must be iteratively under taken from the customer’s or user’s perspective [7] and SDLC covers most of the web development it didn’t cover one crucial factor that is need for short development time. In short, SDLC didn’t cover the complexity of the web development. So, the researchers used the WDLC for the complexity of the web application.

Project Planning. The project started with initial planning. Researchers conducted meetings and discussion about the capstone proposals together with their adviser. They discussed the usual problems that the society is now facing and how can the researchers solve the complications as well. The adviser tasked the researchers to conduct at least 3 topics about the different problems of the society. The proposal was a collaboration of ideas and suggestions of each member. After formulating the 3 topics, the researchers presented it to their respective adviser. After thorough discussions, the College Dean, Mrs. Roselie Alday, approved the proposal.

System Requirements Analysis. The researchers read articles, studies and statistics which are related to the study. The adviser gave timeframe to the project and announcement of the deadlines. They talked about the timetable for each member to follow to accomplish the project. The researchers divided the task to each member to quicken the development of the project. The researchers conducted interviews with people and organization who are related to their study. On this part, the researchers knew the objectives, target, users, features, functionalities, and limitation of the project.

System Design. In this part, the formulated time framework was applied. Each research was fully analyzed and examined for the study. The researchers recognized the project's target users and its necessities as well and they articulated the main purpose of the project. They used Visual Studio in developing the web application and Adobe Photoshop and Adobe Xd for the layout of designs. They also used MySQL Workbench for the database. The researchers already cite functionalities, features and appropriate guidelines of the application software. The researchers visualized flowcharts and propose techniques and strategic plans. The researchers also visualized the interface of the application software as well as the icons and layout design. Specific algorithms were essential and relative to the project was also gathered.

Testing. Next to system designing is the testing procedure. The researchers debugged and test the application. They examined the whole program to get and know the errors and change it as soon as possible. All the features were working and functional. They already distinguished the needs of the project and identify missing features.

Implementation. Upon seeing the results of the testing procedures, all the plans were executed. The graphical user interface designed through Adobe Photoshop and Adobe Xd. All functions and features were coded to their respective development environment, Visual Studio for creating the web application, My SQL Workbench for cloud database storage.

Acceptance and Deployment After the assessment of the testing stage, the researchers evaluated and assessed the project to be able to improve and enhance. After all the revisions have been made, the project is ready for deployment. The researchers presented the project to different shipping companies to see if they wanted to adapt it.

Maintenance Finally, the researchers introduced the developed system to the different shipping companies and given a chance for them to adopt it, the researchers handed over some documentations for further adoption of the system.

Flowchart

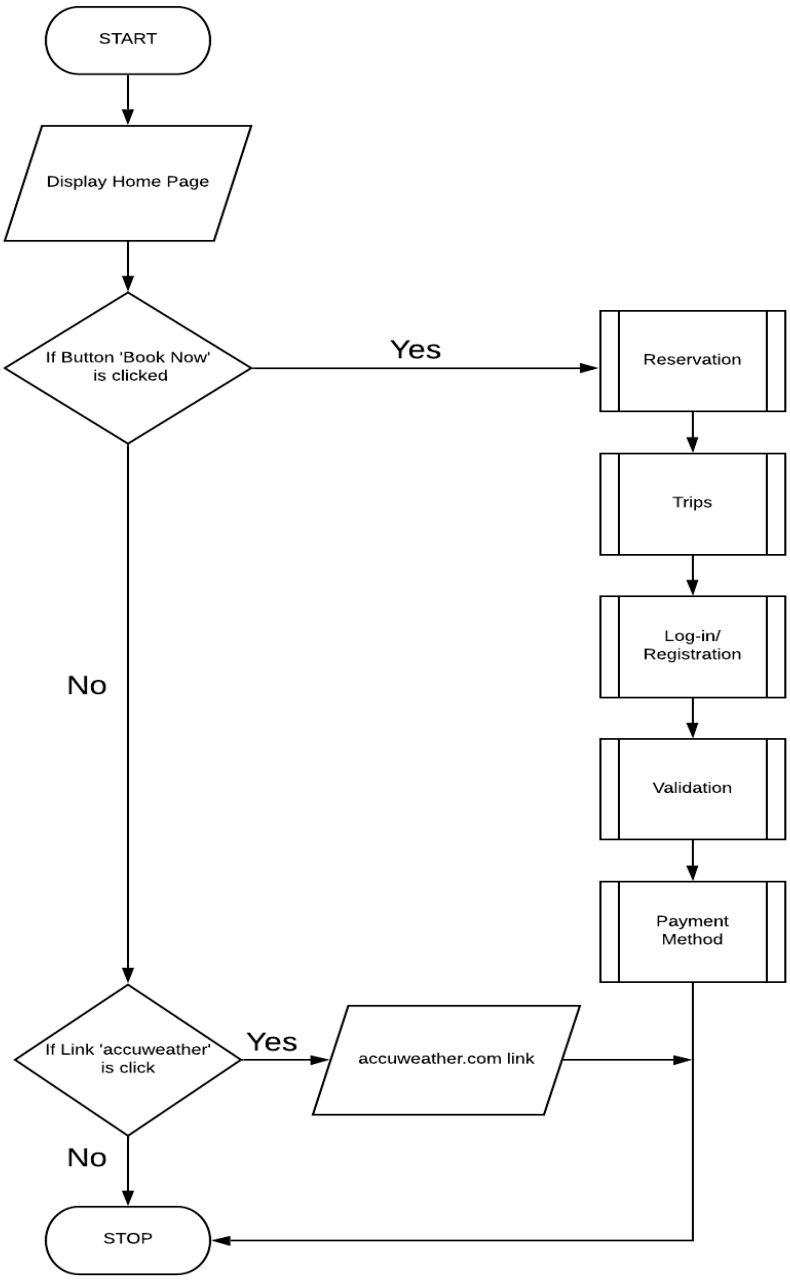

Figure 1. Home Page

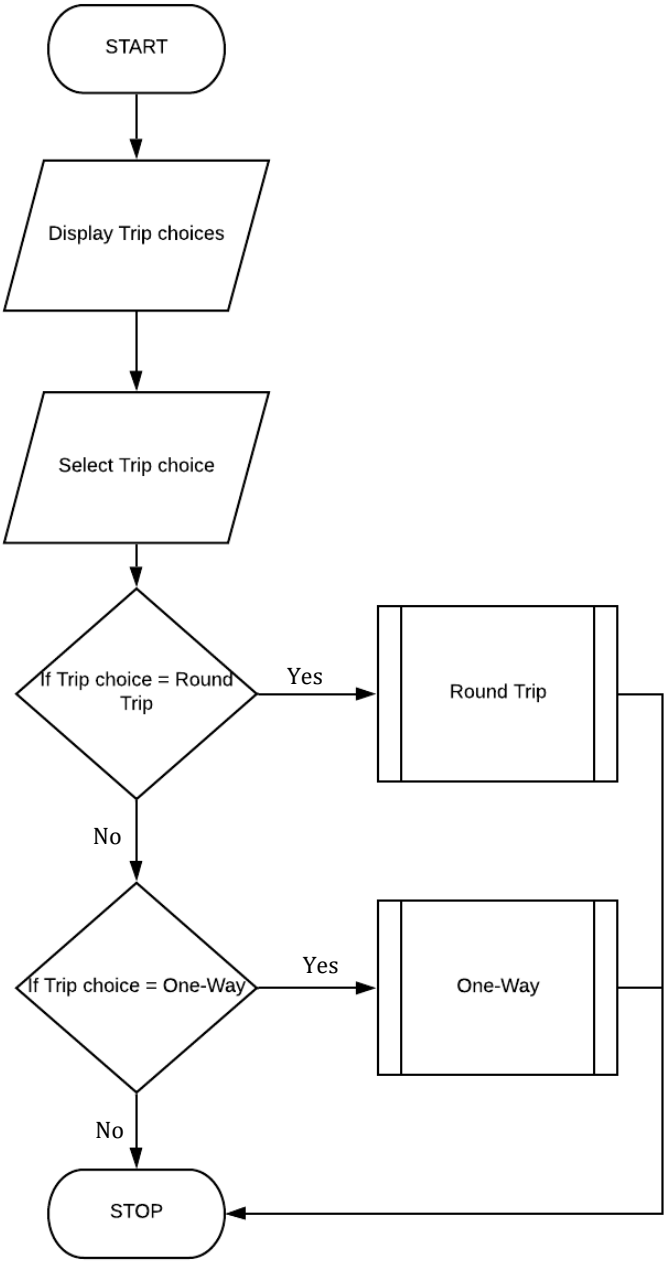

Figure 2. Reservation Page

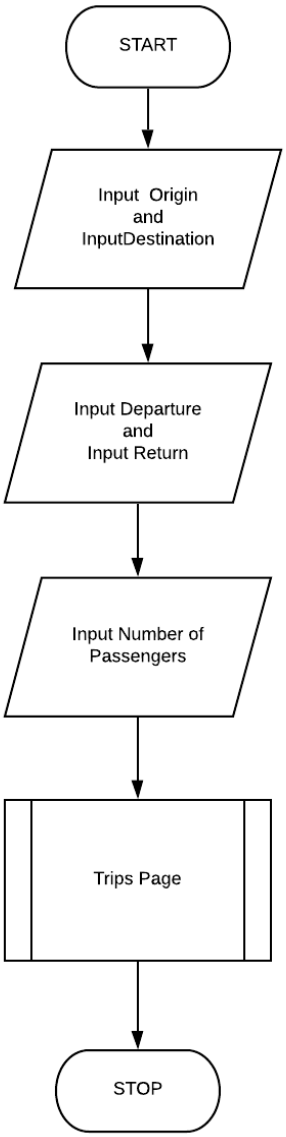

Figure 2.1 Reservation Page for Round Trip

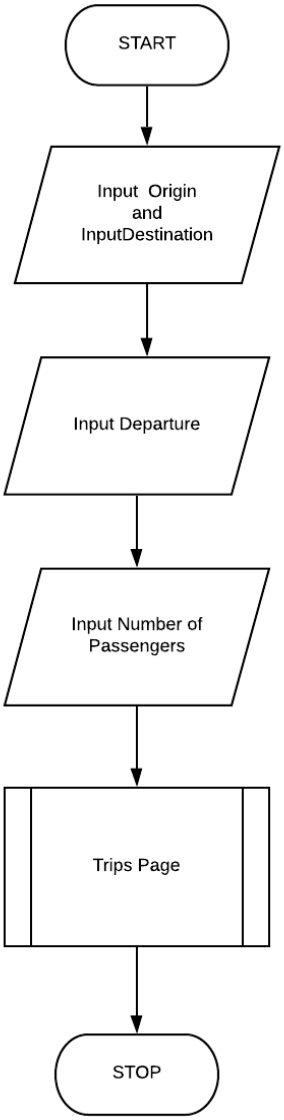

Figure 2.2 Reservation Page for One-Way

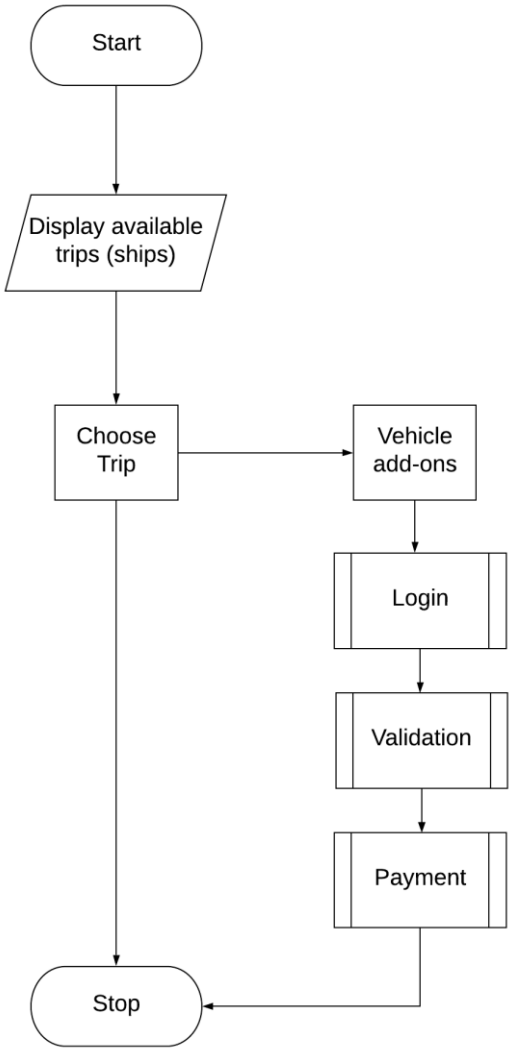

Figure 3. Trips Page

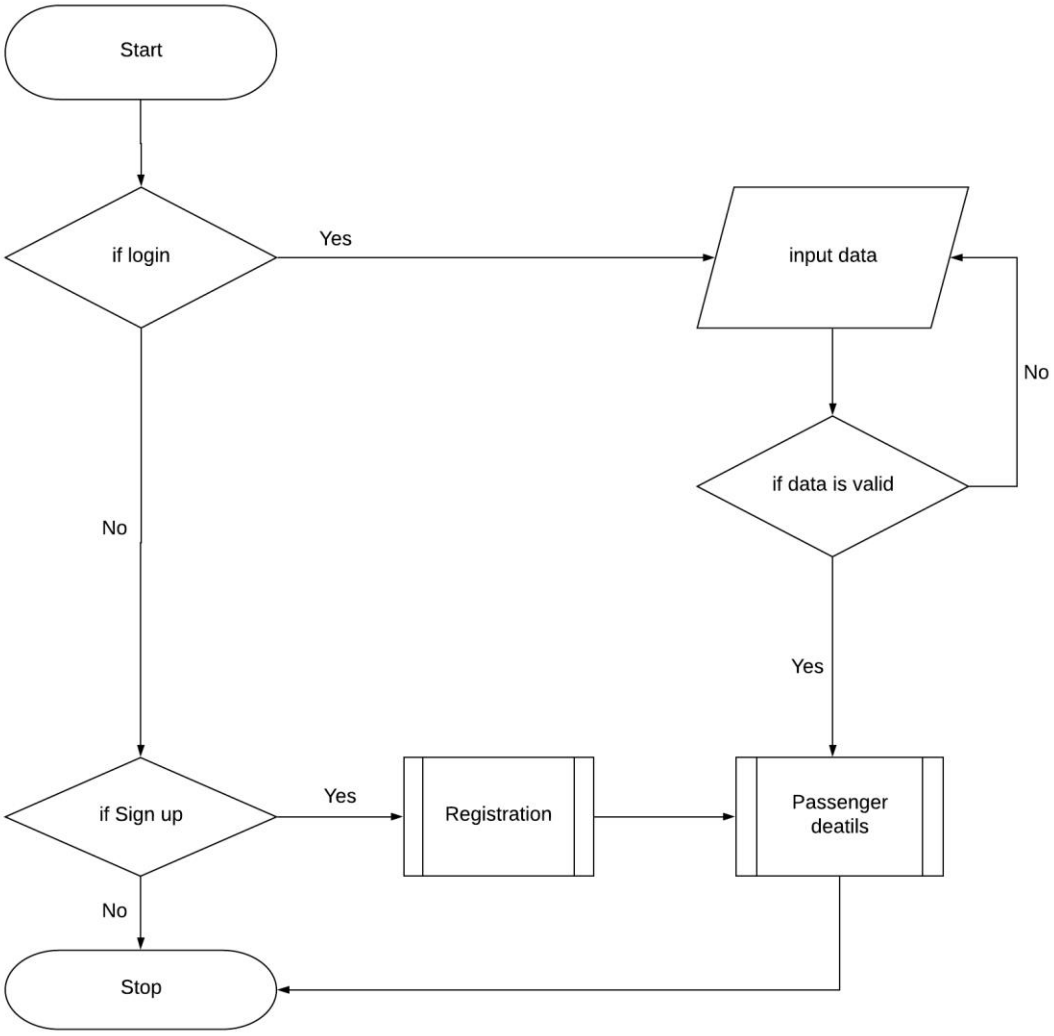

Figure 4. Login/Registration Page

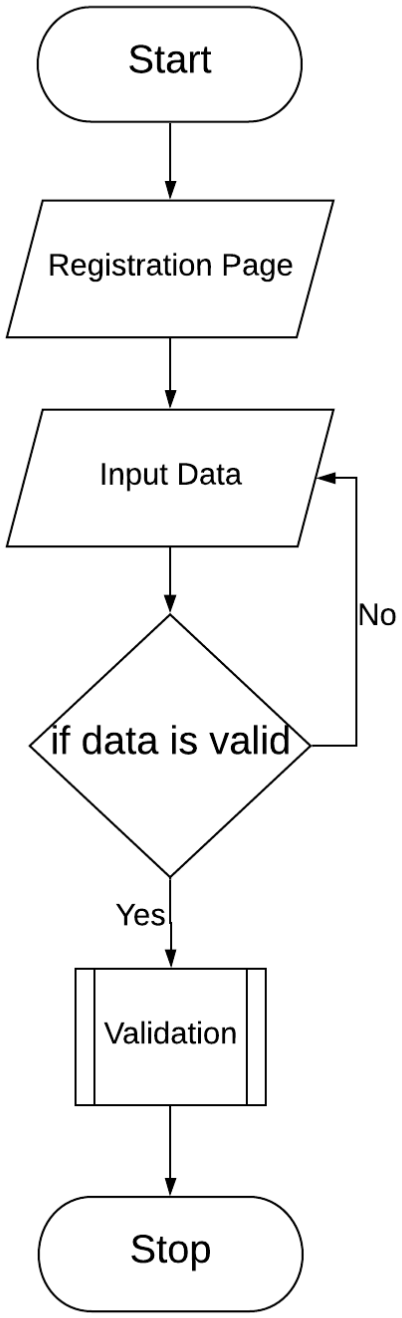

Figure 5. Registration/Passenger Details

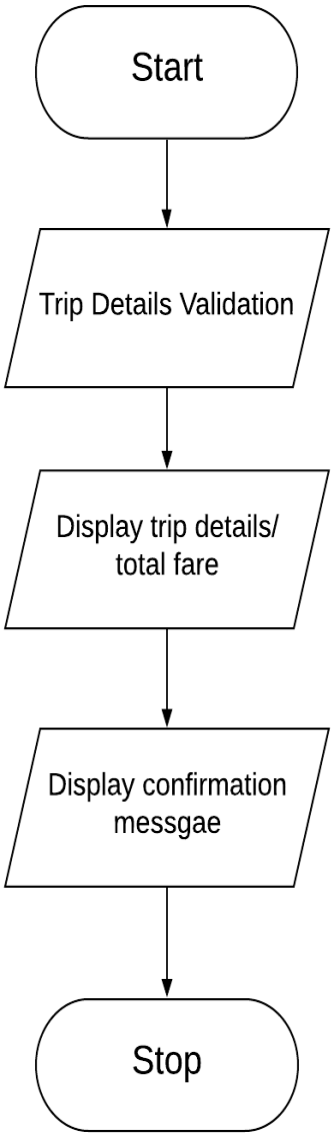

Figure 6. Validation

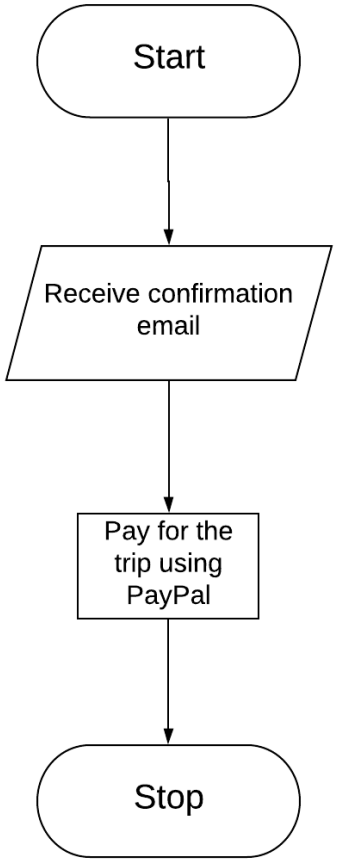

Figure 7. Payment Method

4.0 DISCUSSION

4.1 Screenshots

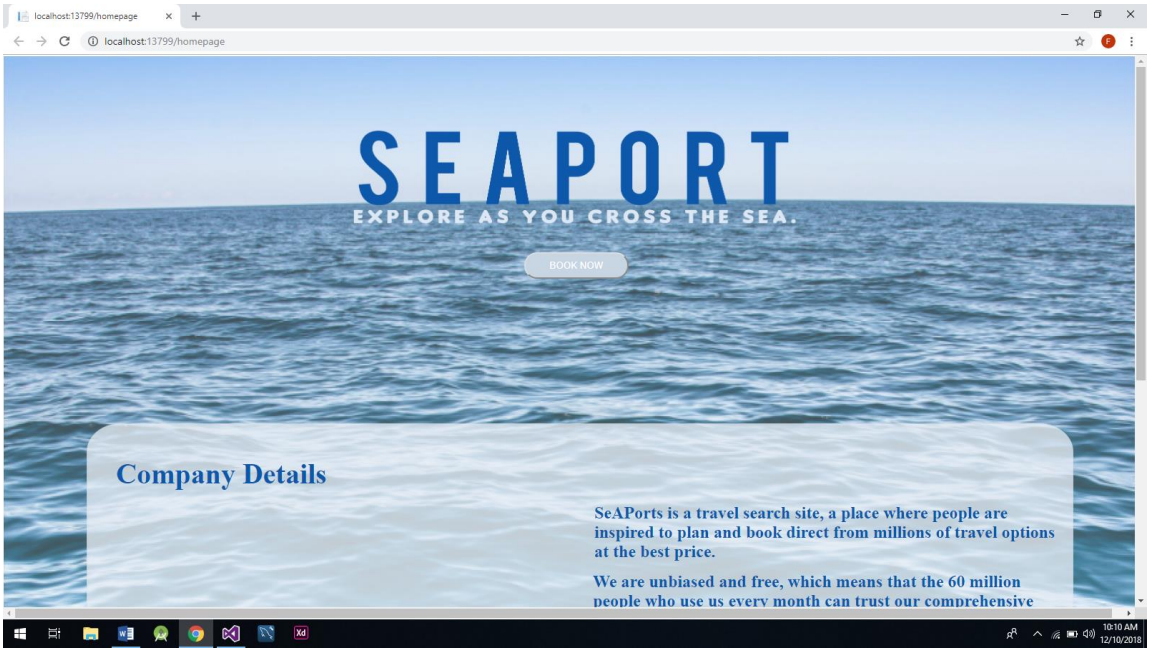

Figure 8. Home Page

It shows the details of the company and you can book a trip.

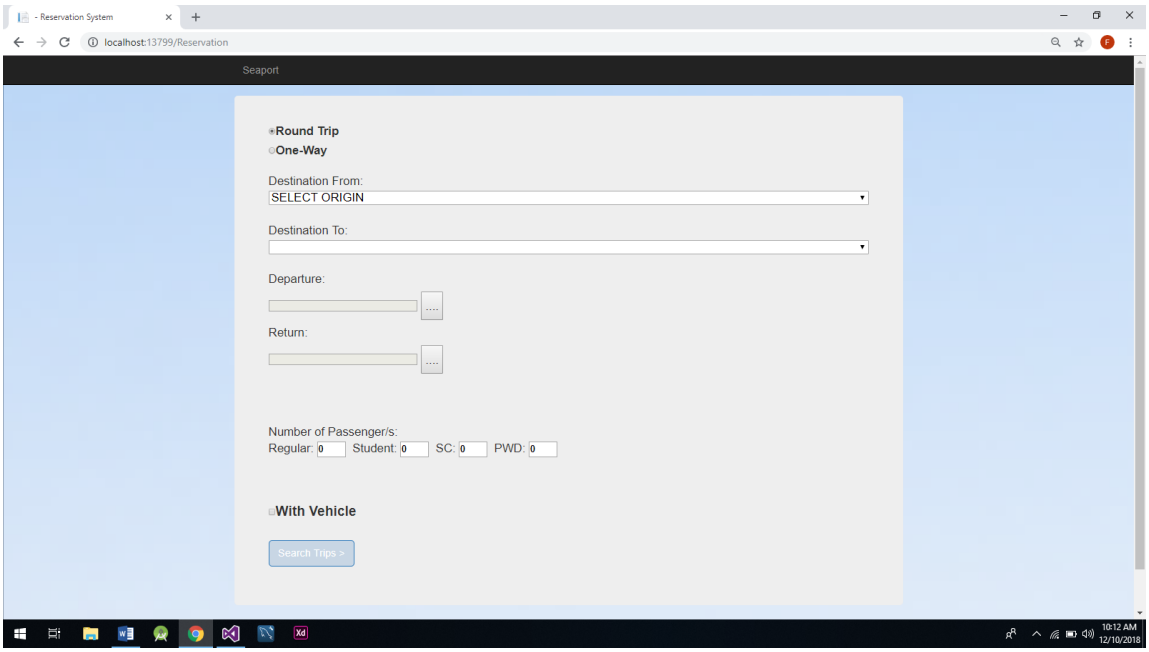

Figure 9. Reservation Page

In this figure, the user can choose whether their reservation would be one-way or round-trip reservation, their departure date and date returned (if round trip), they will also input the number of passengers, and if with or without vehicle.

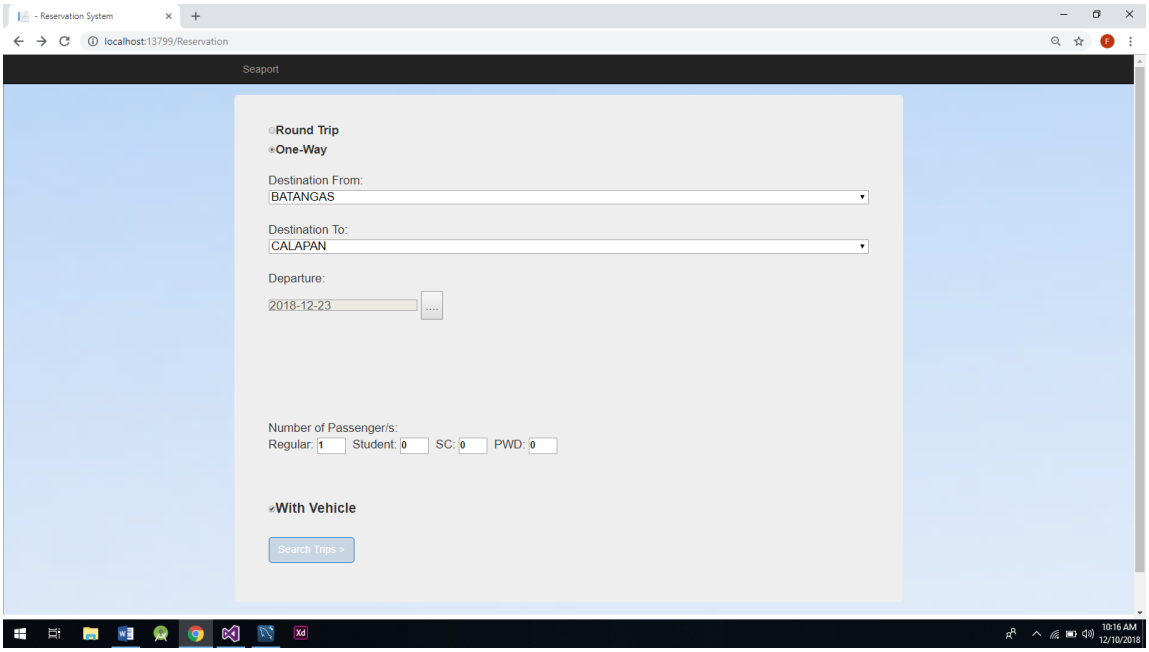

Figure 9.1. Reservation Page (One-Way)

This is an example of the one-way trip reservation.

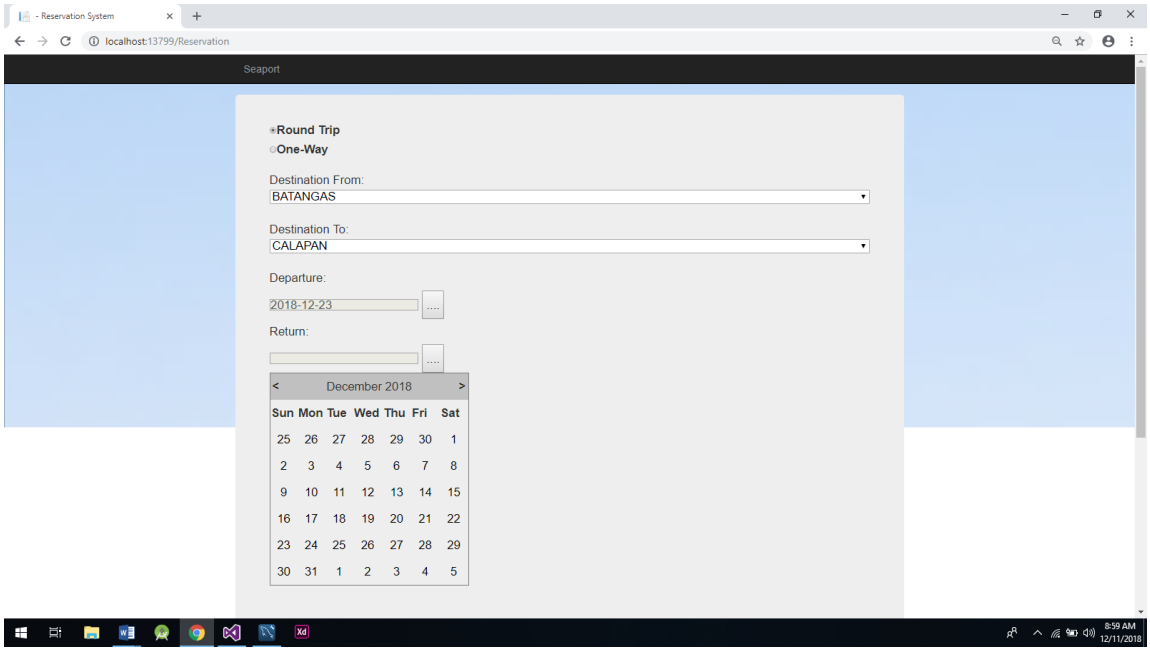

Figure 9.2. Reservation Page (Round-Trip)

This is an example of the round-trip reservation.

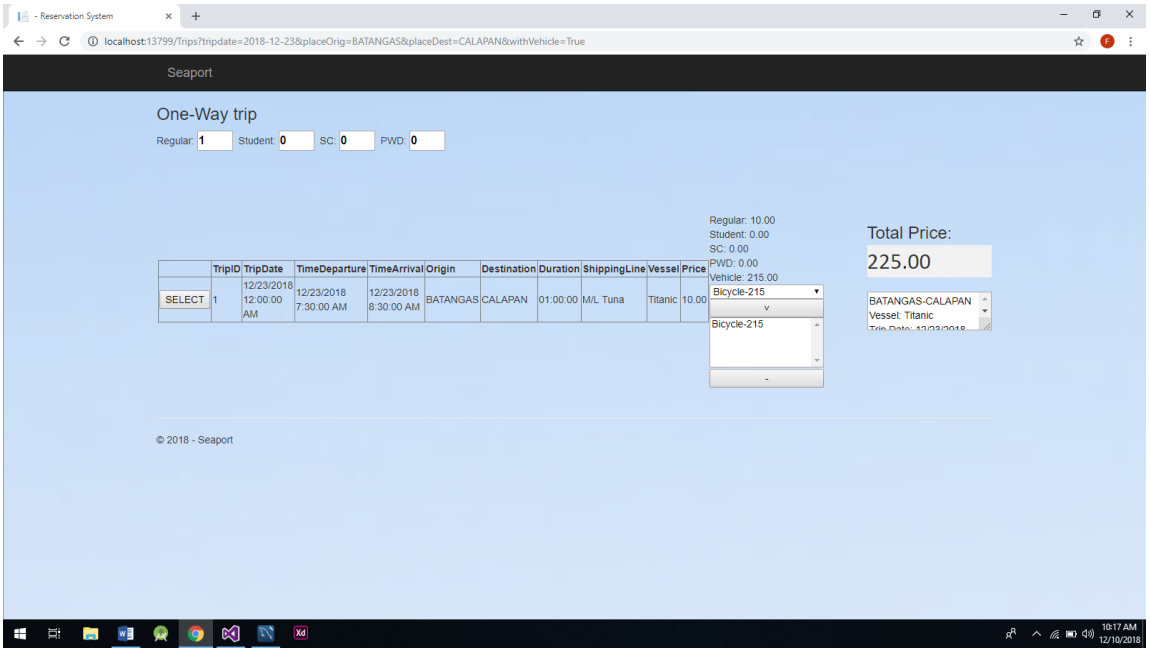

Figure 10. Trips Page (One-Way)

This is the page where the user will verify and select his/her reservation. The total price will be outputted on the upper right corner of the page.

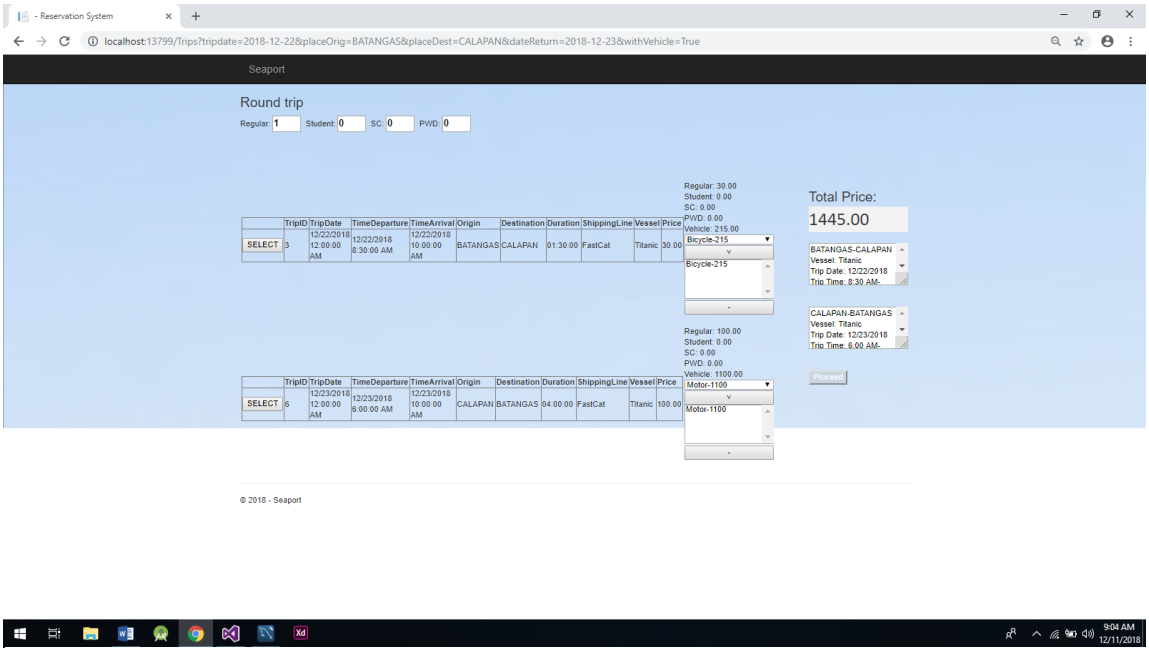

Figure 10.1 Trips Page (Round-Trip)

This is the page where the user will verify and select their reservation. The total price will be outputted on the upper right corner of the page.

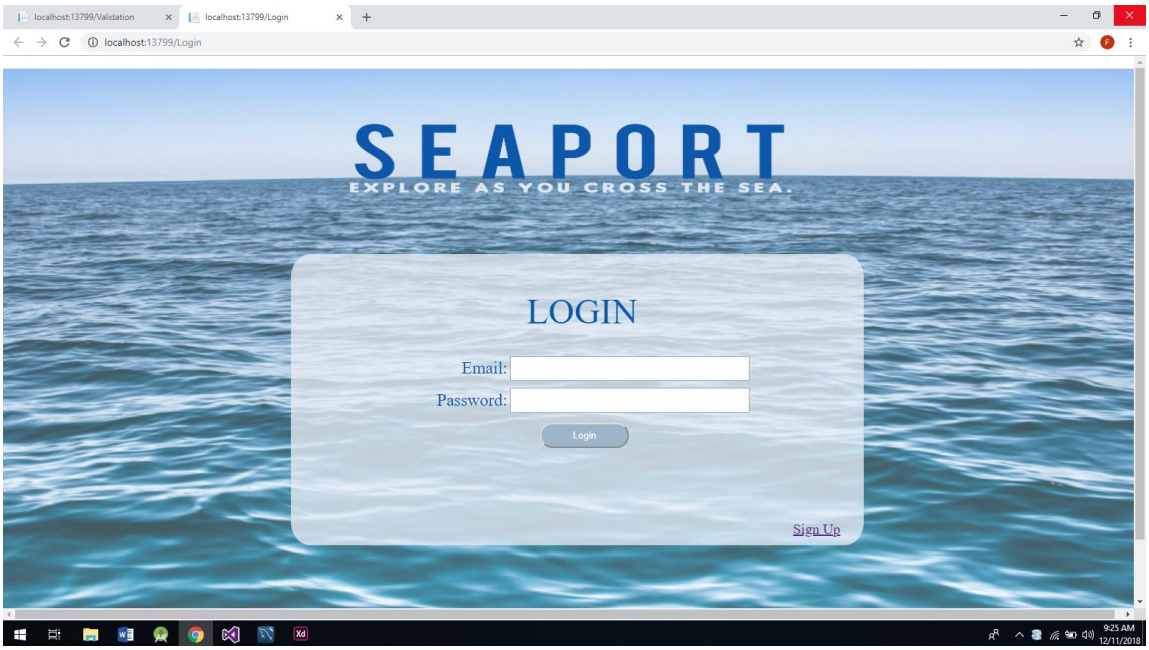

Figure 11. Login Page

This is where the user will log on to their account. If they do not have an account, he/she can click the sign-up link below.

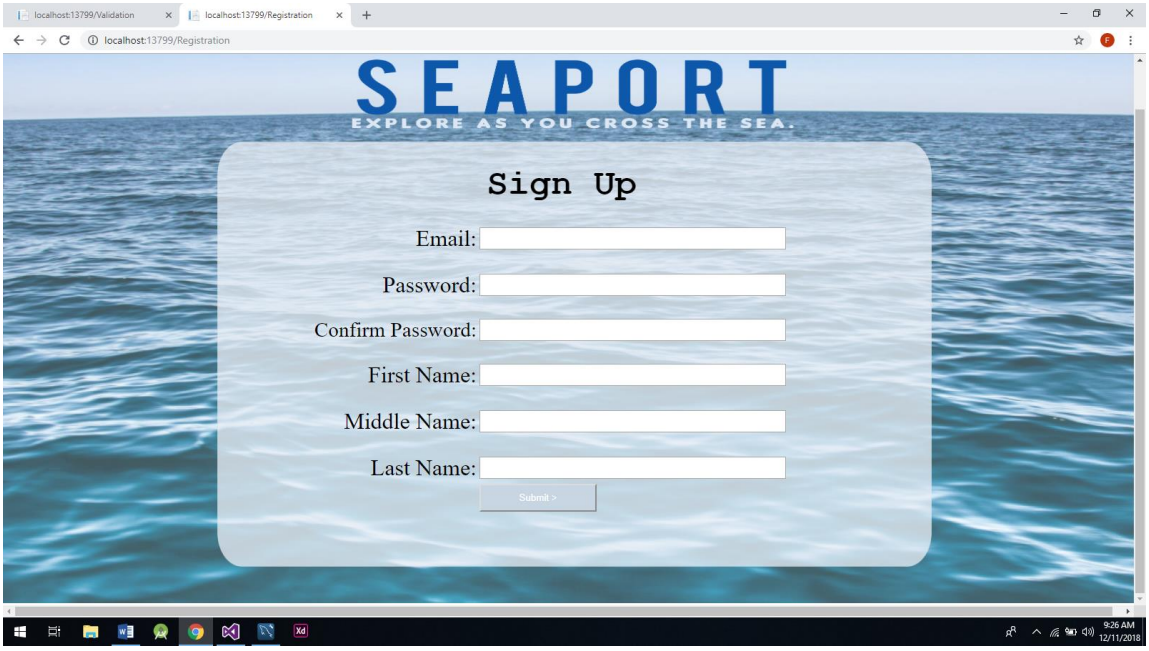

Figure 12. Sign Up Page

This is where the user can sign up to create their own account.

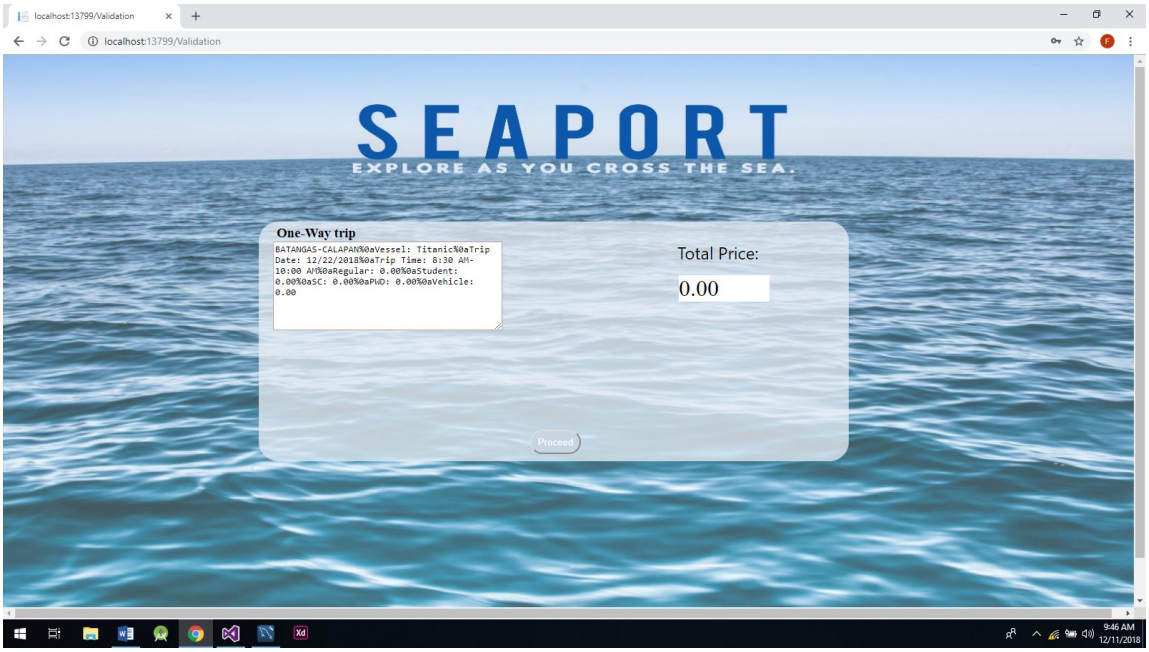

Figure 13. Payment Page (One-Way)

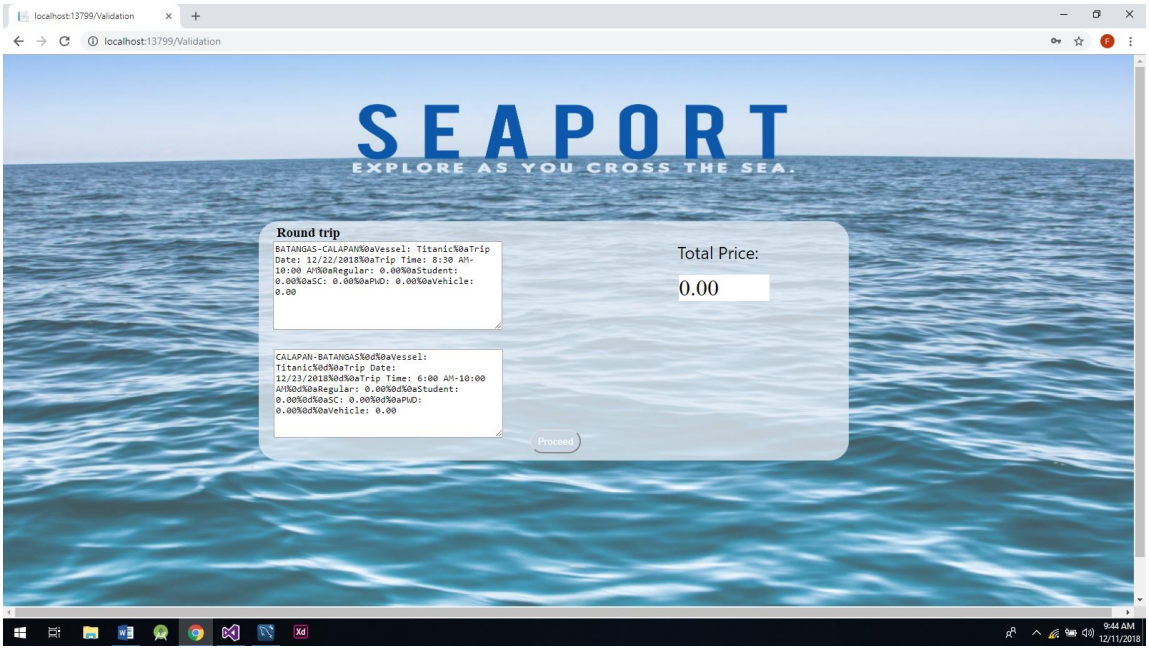

Figure 14. Payment Page (Round-Trip)

Once the user is done logging in, he/she will be directed to this page where he/she will pay for the reservation made.

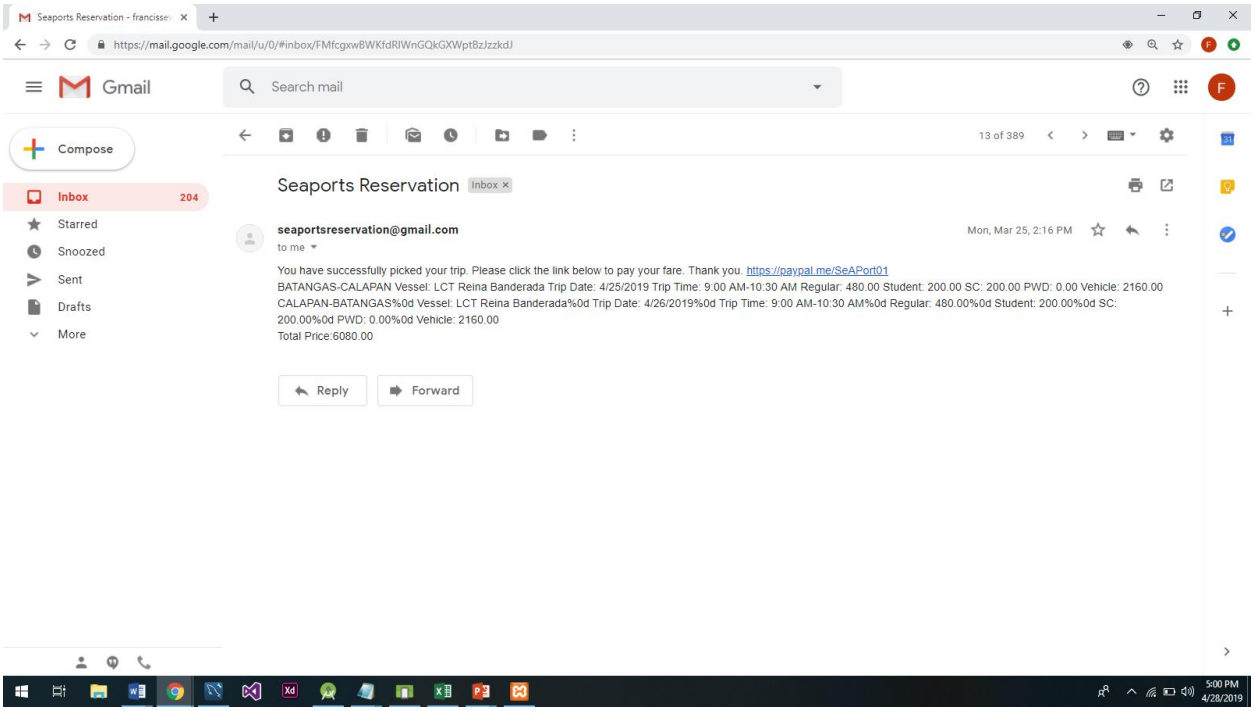

Figure 15. Email Verification

An Email will be sent to the user for the verification and payment of the reserved trip. Also this will be the ticket for your trip.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY

SeAPorts is a web application that is made for users who have difficulties in reserving trips. It reduces the hassle of commuting by helping the passenger easily book a trip. All they need is a good internet connection and they can access the web application through their cellular phones or desktop computers. The passengers will be informed about the available trips on the day that they chose.

The web application is comprehensible and can be used easily. Users can easily use the system because it only includes minimal procedures. They just need to select if their reservation is going to be one-way or round-trip. Then, they will input their origin and destination, their departure date and the date that they are going to return. They also need to provide the number of passengers and specify whether they are a regular, student, senior citizen, or person with disability for their discount. They also need to check if they have vehicles. After inputting all the needed information, the user just needs to click the “Search Trip” button to show the available trips on the day that they chose. Once the user has decided the trip that they want, they just need to select the trip and add the vehicle (if any). The amount to be paid will be shown on the upper right corner of the web application. If the user is done choosing, they could pay their reservation using the service of PayPal.

The researchers developed the web application in Visual Studio using ASP.Net framework with C# as the programming language. The database used is MySQL Workbench, while the designs were made through Adobe Xd and Photoshop.

This capstone project was developed to help many people to easily track the availability of the ships around their area.

5.2 CONCLUSIONS

Based on the data that we gathered, the researchers concluded and found out that SeAPorts can provide passengers/travelers the easiest way to reserve their trips in just one snap. This would be a great help to the passengers who are having a hard time in looking for the available trips in their preferred date. Also, this web application can also help port congestion that is the main problem that arise nowadays in different ports all over the world.

5.3 RECOMMENDATIONS

Based on the findings and conclusions presented, this application is recommended for both Web and Mobile Web-based users. The application is a way to improve the services of different ship companies all over the world and a technological innovation that provides a marketing strategy that attracts more passengers.

The future researchers who are willing to adapt the website and have the same advocacy to solve the problem in transportation specifically in water transportation can add features like putting red marks on the calendar if there is no trips available and they can also add the number of passengers' that can still reserve in each ship and notify if it reached the limit of the ships' capacity. Lastly, they can also make it as a Mobile Application for convenience of the user.

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CODE LISTING

SEAPORTS

TRIPS PAGE (C# Code)

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using MySql.Data.MySqlClient;
using System.Data;


namespace WebApplication1
{
   public partial class Trips :
System.Web.UI.Page
   {

      protected void Page_Load(object
sender, EventArgs e)
      {
         String tripdate =
Request.QueryString["tripdate"];
         String placeOrig =
Request.QueryString["placeOrig"];
         String placeDest =
Request.QueryString["placeDest"];
         string dateReturn =
Request.QueryString["dateReturn"];
         string withVehicle =
Request.QueryString["withVehicle"];
         string price =
Request.QueryString["price"];
         int d = 0;

         if
(Request.Cookies[General.COOKIE] !=
null)
         {
            HttpCookie curCookie =
Request.Cookies[General.COOKIE];
            if
(Server.HtmlEncode(curCookie.Values["rou
ndtrip"]) != null)
            {
               if
(Server.HtmlEncode(curCookie.Values["rou
ndtrip"]).ToString() == "true")
                  tripType.InnerHtml = "Round
trip";
               else
                  tripType.InnerHtml = "One-
Way trip";
            }
            else
               tripType.InnerHtml = "One-
Way trip";

            if
(Server.HtmlEncode(curCookie.Values["Re
gular"]) != null)
            {
               Regular.Text =
Server.HtmlEncode(curCookie.Values["Reg
ular"]);
            }
            if
(Server.HtmlEncode(curCookie.Values["Stu
dent"]) != null)
            {
               Student.Text =
Server.HtmlEncode(curCookie.Values["Stud
ent"]);
            }
            if
(Server.HtmlEncode(curCookie.Values["SC
"]) != null)
            {
               SC.Text =
Server.HtmlEncode(curCookie.Values["SC"
]);
            }
```

```
            if
(Server.HtmlEncode(curCookie.Values["PW
D"]) != null)
            {
                PWD.Text =
Server.HtmlEncode(curCookie.Values["PW
D"]);
            }
        }

        bool wV = false;
        if (withVehicle != null)
        {
            wV =
Convert.ToBoolean(withVehicle);
        }

        if (wV==false)
        {
            vehiclesDDL.Visible = false;
            btnAdd.Visible = false;
            vehiclesLB.Visible = false;
            btnRemove.Visible = false;
            Label13.Visible = false;
            VehicleTP1.Visible = false;
            vehiclesDDL2.Visible = false;
            btnAdd2.Visible = false;
            vehiclesLB2.Visible = false;
            btnRemove2.Visible = false;
            Label15.Visible = false;
            VehicleTP2.Visible = false;
        }

        GridView g = GridView1;
        GridView h = GridView2;



        MySqlConnection c =
General.connect();
        MySqlCommand sql = new
MySqlCommand();
        MySqlDataReader r = null;

        sql.Connection = c;
        sql.CommandText =
string.Format("Select * from trips_available
where TripDate='{0}' and Origin='{1}' and
Destination='{2}' and Vessel IN (SELECT
vessel FROM ships WHERE withVehicle =
{3})", tripdate, placeOrig, placeDest,
(wV==true ? 1 : 0));
        //sql.CommandText =
string.Format("Select price from cars where
idcars!='{0}' ", price);
        try
        {
            r = sql.ExecuteReader();
            g.Columns.Clear();
            hiderow.Visible = false;



            if (r.HasRows)
            {
                DataTable dt = new
DataTable();
                dt.Columns.Clear();
                dt.Rows.Clear();

                d = 0;

                for (d = 0; d < r.FieldCount;
d++)
                {

dt.Columns.Add(r.GetName(d));
                }



                while (r.Read())
                {
                    DataRow row =
dt.NewRow();
                    d = 0;

                    for (d = 0; d < r.FieldCount;
d++)
                    {
                        row[d] = r.GetString(d);
                    }
                    dt.Rows.Add(row);
                }
                g.DataSource = dt;
```

```
            //ButtonColubmn bc = new
ButtonColumn();
            ButtonField cfSelect = new
ButtonField();
            cfSelect.ButtonType =
ButtonType.Button;
            cfSelect.CommandName =
"SELECT";
            cfSelect.Text = "SELECT";

cfSelect.ItemStyle.HorizontalAlign =
HorizontalAlign.Center;
            cfSelect.Visible = true;
            g.Columns.Add(cfSelect);
            g.DataBind();
         }

         if (r != null)
            r.Close();
         r = null;
         sql = null;
         General.disconnect(c);

         //second table
         if (dateReturn != null)

         {
            c = General.connect();
            sql = new MySqlCommand();

            sql.Connection = c;
            sql.CommandText =
string.Format("Select * from trips_available
where TripDate='{0}' and Origin='{1}' and
Destination='{2}' and Vessel IN (SELECT
vessel FROM ships WHERE withVehicle =
{3})", dateReturn, placeDest, placeOrig,
(wV== true ? 1 : 0));

            r = sql.ExecuteReader();
            h.Columns.Clear();
            displaytrip2.Visible = true;
            hiderow.Visible = true;


            if (r.HasRows)
            {
               DataTable dt = new
DataTable();
               dt.Columns.Clear();
               dt.Rows.Clear();

               d = 0;

               for (d = 0; d < r.FieldCount;
d++)
               {

dt.Columns.Add(r.GetName(d));
               }

               while (r.Read())
               {
                  DataRow row =
dt.NewRow();
                  d = 0;

                  for (d = 0; d <
r.FieldCount; d++)
                  {
                     row[d] = r.GetString(d);
                  }
                  dt.Rows.Add(row);
               }
               h.DataSource = dt;
               ButtonField cfSelect = new
ButtonField();
               cfSelect.ButtonType =
ButtonType.Button;
               cfSelect.CommandName =
"SELECT";
               cfSelect.Text = "SELECT";

cfSelect.ItemStyle.HorizontalAlign =
HorizontalAlign.Center;
               cfSelect.Visible = true;
               h.Columns.Add(cfSelect);
               h.DataBind();
            }
         }

      }
```

```
        catch (MySqlException k)
        {
            Console.WriteLine(k.Message);
        }
        finally
        {
            if (r != null)
                r.Close();
            r = null;
            sql = null;
            General.disconnect(c);



        }

        if(!IsPostBack)
        {

vehiclesDDL_Populate(dateReturn != null);
        }

    }

    protected void
GridView1_SelectedIndexChanged(object
sender, EventArgs e)
    {

    }

    protected void
GridView1_RowCommand(object sender,
GridViewCommandEventArgs e)
    {
        if (e.CommandName == "SELECT")
        {
            int index =
Convert.ToInt32(e.CommandArgument);

            GridViewRow selectedRow =
GridView1.Rows[index];
            RegularTP1.Text =
string.Format("{0:0.00}",
Convert.ToDouble(selectedRow.Cells[10].T
ext) * Convert.ToDouble(Regular.Text));
            StudentTP1.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(Student.Text));
            SCTP1.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(SC.Text));
            PWDTP1.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(PWD.Text));


CalculateTotalPrice(tripType.InnerText ==
"Round trip");


            displaytrip.Text =
selectedRow.Cells[5].Text + "-" +
selectedRow.Cells[6].Text + "\nVessel: " +
selectedRow.Cells[9].Text + "\nTrip Date: "
+
Convert.ToDateTime(selectedRow.Cells[2].
Text).ToShortDateString() + "\nTrip Time: "
+
Convert.ToDateTime(selectedRow.Cells[3].
Text).ToShortTimeString() + "-" +
Convert.ToDateTime(selectedRow.Cells[4].
Text).ToShortTimeString() + "\nRegular: "
+ RegularTP1.Text + "\nStudent: " +
StudentTP1.Text + "\nSC: " + SCTP1.Text
+ "\nPWD: " + PWDTP1.Text + "\nVehicle:
" + VehicleTP1.Text;
        }
    }
        protected void
GridView2_RowCommand(object sender,
GridViewCommandEventArgs e)
    {
        if (e.CommandName == "SELECT")
        {
```

```
            int index =
Convert.ToInt32(e.CommandArgument);

            GridViewRow selectedRow =
GridView2.Rows[index];

            RegularTP2.Text =
string.Format("{0:0.00}",
Convert.ToDouble(selectedRow.Cells[10].T
ext) * Convert.ToDouble(Regular.Text));
            StudentTP2.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(Student.Text));
            SCTP2.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(SC.Text));
            PWDTP2.Text =
string.Format("{0:0.00}",
(Convert.ToDouble(selectedRow.Cells[10].
Text) / 1.20) *
Convert.ToDouble(PWD.Text));

CalculateTotalPrice(tripType.InnerText ==
"Round trip");



            displaytrip2.Text =
selectedRow.Cells[5].Text + "-" +
selectedRow.Cells[6].Text + "\nVessel: " +
selectedRow.Cells[9].Text + "\nTrip Date: "
+
Convert.ToDateTime(selectedRow.Cells[2].
Text).ToShortDateString() + "\nTrip Time: "
+
Convert.ToDateTime(selectedRow.Cells[3].
Text).ToShortTimeString() + "-" +
Convert.ToDateTime(selectedRow.Cells[4].
Text).ToShortTimeString() + "\nRegular: "
+ RegularTP2.Text + "\nStudent: " +
StudentTP2.Text + "\nSC: " + SCTP2.Text
+ "\nPWD: " + PWDTP2.Text + "\nVehicle:
" + VehicleTP2.Text;
        }
    }

    protected void
vehiclesDDL_Populate(bool roundtrip =
false)
    {
        MySqlConnection c;
        MySqlCommand sql;
        MySqlDataReader r = null;

        c = General.connect();
        if (c != null)
        {
            sql = new MySqlCommand();
            sql.Connection = c;
            sql.CommandText = "Select idcars
from cars";
            try
            {
                r = sql.ExecuteReader();

                if (r.HasRows)
                {
                    vehiclesDDL.Items.Clear();

vehiclesDDL.Items.Add("SELECT
VEHICLES");
                    if (roundtrip == true)
                    {

vehiclesDDL2.Items.Clear();

vehiclesDDL2.Items.Add("SELECT
VEHICLES");
                    }

                    while (r.Read())
                    {

vehiclesDDL.Items.Add(r.GetString("idcars
"));

                        if (roundtrip == true)
```

```
vehiclesDDL2.Items.Add(r.GetString("idcar
s"));
                    }
                }
            }
            catch (MySqlException j)
            {
                //display error
                Console.WriteLine(j.Message);
            }
            finally
            {
                if (r != null)
                    r.Close();
                r = null;
                sql = null;
                General.disconnect(c);




            }
        }
    }

    protected void btnAdd_Click(object
sender, EventArgs e)
    {
        string[] vehicle;

        vehicle = vehiclesDDL.Text.Split('-
');
        VehicleTP1.Text =
string.Format("{0:0.00}",
Convert.ToDouble(VehicleTP1.Text) +
Convert.ToDouble(vehicle[1]));

vehiclesLB.Items.Add(vehiclesDDL.Text);

CalculateTotalPrice(tripType.InnerHtml ==
"Round trip");



    }

    protected void
btnRemove_Click(object sender, EventArgs
e)
    {
        if (vehiclesLB.SelectedIndex != -1)
        {
            string[] vehicle;

            vehicle = vehiclesLB.Text.Split('-
');
            VehicleTP1.Text =
string.Format("{0:0.00}",
Convert.ToDouble(VehicleTP1.Text) -
Convert.ToDouble(vehicle[1]));

vehiclesLB.Items.Remove(vehiclesLB.Selec
tedItem);

CalculateTotalPrice(tripType.InnerHtml ==
"Round trip");
        }

    }

    protected void
Regular_TextChanged(object sender,
EventArgs e)
    {
        if (Convert.ToInt32(Regular.Text) <
0)
        {
            Regular.Text = "0";
        }
    }

    protected void
Student_TextChanged(object sender,
EventArgs e)
    {
        if (Convert.ToInt32(Student.Text) <
0)
        {
            Student.Text = "0";
        }
    }
```

```
    protected void SC_TextChanged(object
sender, EventArgs e)
    {
        if (Convert.ToInt32(SC.Text) < 0)
        {
            SC.Text = "0";
        }
    }

    protected void
PWD_TextChanged(object sender,
EventArgs e)
    {
        if (Convert.ToInt32(PWD.Text) < 0)
        {
            PWD.Text = "0";
        }
    }

    protected void Regular_Init(object
sender, EventArgs e)
    {

    }

    protected void
vehiclesDDL_SelectedIndexChanged(object
sender, EventArgs e)
    {

    }

    protected void btnAdd2_Click(object
sender, EventArgs e)
    {
        string[] vehicle;

        vehicle = vehiclesDDL2.Text.Split('-
');
        VehicleTP2.Text =
string.Format("{0:0.00}",
Convert.ToDouble(VehicleTP2.Text) +
Convert.ToDouble(vehicle[1])).ToString();

vehiclesLB2.Items.Add(vehiclesDDL2.Text
);

CalculateTotalPrice(tripType.InnerHtml ==
"Round trip");



    }

    protected void
btnRemove2_Click(object sender,
EventArgs e)
    {
        if (vehiclesLB2.SelectedIndex != -1)
        {
            string[] vehicle;

            vehicle =
vehiclesLB2.Text.Split('-');
            VehicleTP2.Text =
string.Format("{0:0.00}",
Convert.ToDouble(VehicleTP2.Text) -
Convert.ToDouble(vehicle[1])).ToString();

vehiclesLB2.Items.Remove(vehiclesLB2.Sel
ectedItem);

CalculateTotalPrice(tripType.InnerHtml ==
"Round trip");
        }
    }
    protected void
CalculateTotalPrice(bool roundtrip = false)
    {
        double RTP1;
        double RTP2;
        double STP1;
        double STP2;
        double SeniorTP1;
        double SeniorTP2;
        double PersonWDTP1;
        double PersonWDTP2;
        double VTP1;
        double VTP2;


        RTP1 =
Convert.ToDouble(RegularTP1.Text);
```

```
        STP1 =
Convert.ToDouble(StudentTP1.Text);
        SeniorTP1 =
Convert.ToDouble(SCTP1.Text);
        PersonWDTP1 =
Convert.ToDouble(PWDTP1.Text);
        VTP1 =
Convert.ToDouble(VehicleTP1.Text);

        dprice.Text =
string.Format("{0:0.00}", RTP1 + STP1 +
SeniorTP1 + PersonWDTP1 + VTP1);


        if (roundtrip)
        {
            RTP2 =
Convert.ToDouble(RegularTP2.Text);
            STP2 =
Convert.ToDouble(StudentTP2.Text);
            SeniorTP2 =
Convert.ToDouble(SCTP2.Text);
            PersonWDTP2 =
Convert.ToDouble(PWDTP2.Text);
            VTP2 =
Convert.ToDouble(VehicleTP2.Text);
            dprice.Text =
string.Format("{0:0.00}",
Convert.ToDouble(dprice.Text) + RTP2 +
STP2 + SeniorTP2 + PersonWDTP2 +
VTP2);
        }
    }

    protected void
displaytrip_TextChanged(object sender,
EventArgs e)
    {

    }

    protected void
GridView2_SelectedIndexChanged(object
sender, EventArgs e)
    {
    }

    protected void Proceedbtn_Click(object
sender, EventArgs e)
    {
        if(displaytrip.Text!=null)
        {
            HttpCookie PriceCookie = new
HttpCookie("price");
            PriceCookie.Value = dprice.Text;
            PriceCookie.Expires =
DateTime.Now.AddHours(1);

Response.Cookies.Add(PriceCookie);

            HttpCookie detailCookie = new
HttpCookie("detail");
            detailCookie.Value =
displaytrip.Text;
            detailCookie.Expires =
DateTime.Now.AddHours(1);

Response.Cookies.Add(detailCookie);

            HttpCookie detailCookie2 = new
HttpCookie("detail2");
            detailCookie2.Value =
displaytrip2.Text;
            detailCookie2.Expires =
DateTime.Now.AddHours(1);

Response.Cookies.Add(detailCookie2);

            Response.Redirect("Login.aspx");

        }


        else
        {
            validator1.Visible = true;
        }
    }
  }
}
```

TRIPS PAGE (HTML Code)

```
<%@ Page Language="C#"
MasterPageFile="~/Site.Master"
AutoEventWireup="true"
CodeBehind="Trips.aspx.cs"
Inherits="WebApplication1.Trips" %>

<asp:Content ID="BodyContent"
ContentPlaceHolderID="MainContent"
runat="server">
   <h3 id="tripType" runat="server">Trip
Type</h3>
 <address>

   <asp:Label ID="Regularlbl"
runat="server" Text="Regular: "
></asp:Label> <asp:TextBox ID="Regular"
runat="server" CssClass="auto-style17"
TextMode="Number" Width="50px" Font-
Size="Medium" Font-Bold="true"
OnTextChanged="Regular_TextChanged"
OnInit="Regular_Init"
ReadOnly="True">0</asp:TextBox> 
   <asp:Label ID="LabelStudent"
runat="server" Text="Student:
"></asp:Label> <asp:TextBox ID="Student"
runat="server" CssClass="auto-style17"
TextMode="Number" Width="50px" Font-
Size="Medium" Font-Bold="true"
OnTextChanged="Student_TextChanged"
ReadOnly="True">0</asp:TextBox> 
   <asp:Label ID="LabelSC" runat="server"
Text="SC: "></asp:Label> <asp:TextBox
ID="SC" runat="server" CssClass="auto-
style17" TextMode="Number"
Width="50px" Font-Size="Medium" Font-
Bold="true"
OnTextChanged="SC_TextChanged"
ReadOnly="True">0</asp:TextBox> 
   <asp:Label ID="LabelPWD"
runat="server" Text="PWD:
"></asp:Label><asp:TextBox ID="PWD"
runat="server" CssClass="auto-style17"
TextMode="Number" Width="50px" Font-
Size="Medium" Font-Bold="true"
OnTextChanged="PWD_TextChanged"
ReadOnly="True">0</asp:TextBox> 
   <asp:TextBox ID="passenger"
runat="server" CssClass="auto-style17"
TextMode="Number"
Visible="False"></asp:TextBox>

   <br />
   <asp:RangeValidator id ="rangevalidator"
ErrorMessage="Please enter value between
0 - 100" ForeColor="Red"
ControlToValidate="Regular"
MinimumValue="0" MaximumValue="100"
runat="server"
Type="Integer"></asp:RangeValidator>
   <asp:RangeValidator id
="RangeValidator1" ErrorMessage="Please
enter value between 0 - 100"
ForeColor="Red"
ControlToValidate="Student"
MinimumValue="0" MaximumValue="100"
runat="server"
Type="Integer"></asp:RangeValidator>
   <asp:RangeValidator id
="RangeValidator2" ErrorMessage="Please
enter value between 0 - 100"
ForeColor="Red" ControlToValidate="SC"
MinimumValue="0" MaximumValue="100"
runat="server"
Type="Integer"></asp:RangeValidator>
   <asp:RangeValidator id
="RangeValidator3" ErrorMessage="Please
enter value between 0 - 100"
ForeColor="Red"
ControlToValidate="PWD"
MinimumValue="0" MaximumValue="100"
runat="server"
Type="Integer"></asp:RangeValidator>

 </address>

  <table>
     <tr>
        <td style ="width: 80%">
           <table>
              <tr>
```

```
                <td style ="width: 80%;
padding-right:10%" >
                    <asp:GridView
ID="GridView1" runat="server"
CssClass="auto-style3"
OnRowCommand="GridView1_RowComm
and"
OnSelectedIndexChanged="GridView1_Sel
ectedIndexChanged">
                    </asp:GridView>
                </td>
                <td style ="width:
20%;padding-top:5%">
                    <address>
                        <asp:Label ID="Label1"
runat="server" Text="Regular: "
></asp:Label> <asp:Label
ID="RegularTP1" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label ID="Label2"
runat="server" Text="Student: "
></asp:Label> <asp:Label ID="StudentTP1"
runat="server" Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label ID="Label4"
runat="server" Text="SC: " ></asp:Label>
<asp:Label ID="SCTP1" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label ID="Label6"
runat="server" Text="PWD: "
></asp:Label> <asp:Label ID="PWDTP1"
runat="server" Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label
ID="Label13" runat="server"
Text="Vehicle: " ></asp:Label> <asp:Label
ID="VehicleTP1" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:DropDownList
ID="vehiclesDDL" runat="server"
CssClass="auto-style14" Width ="100%"
OnSelectedIndexChanged="vehiclesDDL_S
electedIndexChanged">
                        </asp:DropDownList>
                        <br />
                        <asp:Button
ID="btnAdd" runat="server"
CssClass="auto-style15" Text="∨"
OnClick="btnAdd_Click" Width ="100%"
/>
                        <br />
                        <asp:ListBox
ID="vehiclesLB" runat="server"
CssClass="auto-style13" Width ="100%"
></asp:ListBox>
                        <br />
                        <asp:Button
ID="btnRemove" runat="server"
CssClass="auto-style16" Text="-"
OnClick="btnRemove_Click" Width
="100%"  />
                        <br />

                    </address>
                </td>
            </tr>
            <tr ID="hiderow"
runat="server">
                <td style ="width: 80%;
padding-right:10%">
                    <asp:GridView
ID="GridView2" runat="server"
CssClass="auto-style4"
OnRowCommand="GridView2_RowComm
and"
OnSelectedIndexChanged="GridView2_Sel
ectedIndexChanged">
                    </asp:GridView>
                </td>
                <td style ="width: 20%">
                    <address>
                        <asp:Label ID="Label3"
runat="server" Text="Regular: "
></asp:Label> <asp:Label
ID="RegularTP2" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label ID="Label7"
runat="server" Text="Student: "
```

```
></asp:Label> <asp:Label ID="StudentTP2"
runat="server" Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label ID="Label9"
runat="server" Text="SC: " ></asp:Label>
<asp:Label ID="SCTP2" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label
ID="Label11" runat="server" Text="PWD:
" ></asp:Label> <asp:Label ID="PWDTP2"
runat="server" Text="0.00" ></asp:Label>
                        <br />
                        <asp:Label
ID="Label15" runat="server"
Text="Vehicle: " ></asp:Label> <asp:Label
ID="VehicleTP2" runat="server"
Text="0.00" ></asp:Label>
                        <br />
                        <asp:DropDownList
ID="vehiclesDDL2" runat="server"
CssClass="auto-style14" Width ="100%">
                        </asp:DropDownList>
                        <br />
                        <asp:Button
ID="btnAdd2" runat="server"
CssClass="auto-style15" Text="∨" Width
="100%" OnClick="btnAdd2_Click" />
                        <br />
                        <asp:ListBox
ID="vehiclesLB2" runat="server"
CssClass="auto-style13" Width ="100%"
></asp:ListBox>
                        <br />
                        <asp:Button
ID="btnRemove2" runat="server"
CssClass="auto-style16" Text="-"  Width
="100%" OnClick="btnRemove2_Click"  />
                        <br />
                    </address>
                </td>
            </tr>
        </table>
    </td>
```

```
        <td style ="width: 30%; vertical-
align: top; padding-top:5%; padding-
left:5%">

            <asp:Label ID="totalprice"
runat="server" CssClass="auto-style9" Font-
Size="X-Large" Text="Total
Price:"></asp:Label>
            <br />
            <asp:Label ID="dprice"
runat="server" CssClass="auto-style5"
Text="0.00" BackColor="#F2F2F2" Font-
Names="Calibri" Font-Size="XX-Large"
Width ="100%"></asp:Label>
            <br />
            <br />
            <asp:TextBox ID="displaytrip"
runat="server" CssClass="auto-style8"
ReadOnly="True" TextMode="MultiLine"
OnTextChanged="displaytrip_TextChanged
" Width="100%"
Height="74px"></asp:TextBox>
            <br />
            <br />
            <br />
            <asp:TextBox ID="displaytrip2"
runat="server" CssClass="auto-style11"
TextMode="MultiLine" Visible="False"
Width="100%"
Height="74px"></asp:TextBox>
            <br />
            <br />
            <br />
            <asp:Button ID="Proceedbtn"
runat="server" CssClass="auto-style3"
OnClick="Proceedbtn_Click"
Text="Proceed" BackColor="#C8D6E4"
ForeColor="White" />
            <br />
            <br />
            <br />
            <asp:RequiredFieldValidator
ID="validator1" runat="server"
ForeColor="Red"
ControlToValidate="displaytrip"
```

```
ErrorMessage="Please Select a
Trip"></asp:RequiredFieldValidator>
          </td>
       </tr>
   </table>

    <div class="auto-style1">


   <%--<asp:Label ID="t1price"
runat="server" CssClass="auto-style6"
BackColor="White"></asp:Label>--%>

        <asp:Label ID="t2price"
runat="server" CssClass="auto-style7"
Text="0.00" Visible="False"></asp:Label>

        <asp:Label ID="tprice1"
runat="server" CssClass="auto-style18"
Text="0.00" Visible="False"></asp:Label>

        <div class="auto-style12">
        </div>
        </div>
        <div class="auto-style10">
       </div>

    </asp:Content>
```

CURRICULUM VITAE

Personal Information
Name: Laurraine Kaezelle M. Cataquis
Address: Sto Nino,Puerto Galera,Oriental Mindoro
Email: kzelcataquis@gmail.com
Date of Birth: May 18, 1999
Citizenship: Filipino
Religion: Roman Catholic
Gender: Female
Age: 19

Educational Background

Elementary: Holy Child Montessori School
Secondary: Puerto Galera Academy
Tertiary: Lyceum of the Philippines University – Batangas

Skills

- Knowledgeable in Programming Languages such as VB.NET, C++,C# and Java
- Proficient in MS Office Systems: Word,Excel,Powerpoint
- Cisco Networking Oriented
- Basic knowledge in Database: SQL and Microsoft Access
- Graphic Designing using Adobe Photoshop, Adobe Illustrator, Adobe Dreamweaver

Seminars and Trainings Attended

- **LPU-Batangas Junior Microsoft Student Partners Training**
  Microsoft Headquarters, Makati
  February 11,2017
- **JPCS Tech Caravan "Connecting the Filipino Youth to the Global Horizon"**)
  Lyceum of the Philippines University- Batangas , Batangas City
  February 17,2018
- **Global Youth Summit 2018**
  SM Mall of Asia Arena
  August 25,2018

Awards and Recognition

- Champion, Java Programming Competition (2016-2017)
- Deans Lister (2015-2016)
- Deans Lister of 1st semester (2016-2017)
- Deans Lister for second semester (2017-2018)
- Computer System Servicing NCII Passer

CURRICULUM VITAE

Personal Information
Name: Sarah Mae D. Licmo
Address: Buco, Talisay, Batangas
Email: saralicmo@gmail.com
Date of Birth: October 29, 1999
Citizenship: Filipino
Religion: Born Again Christian
Gender: Female
Age: 20

Educational Background

Elementary: Caloocan Elementary School
Secondary: Talisay Polytechnic Institute
Tertiary: Lyceum of the Philippines University – Batangas

Skills

- Programming Languages: C++, Java, HTML/CSS, VB.NET**.**
- Familiar with Mobile Application Development such as Android Studio
- Graphic and Multimedia Designing using Adobe Photoshop and Adobe Illustrator
- PC Troubleshooting (Hardware)
- Proficient in Microsoft Office including Word, Excel, and PowerPoint

Seminars and Trainings Attended

- **ALCoB-U, APEC Learning Community Builders Cooperation Project: Basic Coding**
  Lyceum of the Philippines University - Batangas
  August 23, 2018
- **Global Youth Summit 2018**
  Mall of Asia Arena
  August 25, 2018
- **iSITE Regional Student Conference: Data Science and Artificial Intelligence**
  Lyceum of the Philippines – Laguna
  October 1, 2018

Awards and Recognition

- Dean's Lister – First Semester (2017 – 2018)**,** Second Semester (2015 – 2016, 2016 – 2017, 2017 – 2018)
- IT Quiz Competition Contestant (2nd Annual Regional IT Competitions and Research Conference and Presentation)
- 2nd Place – Java Programming Competition (CCS Days 2017)
- Computer Systems Servicing NCII Certified

CURRICULUM VITAE

Personal Information
Name: Josh Bernard M. Ocampo
Address: #50 National Highway Brgy. 8, Cuenca, Batangas
Email: joshimoshi2619@gmail.com
Date of Birth: April 6, 1999
Citizenship: Filipino
Religion: Roman Catholic
Gender: Male
Age: 19

Educational Background

Elementary: Kalayaan Christian School
Secondary: Kalayaan Christian School
Tertiary: Lyceum of the Philippines University – Batangas

Skills

- Cisco skills (Router and Switch Configuration)
- Knowledgeable in Programming Languages such as VB.NET, C++ and Java
- Troubleshooting and Computer Repairs
- Graphic Designing using Adobe Photoshop, Adobe Illustrator
- Good communication skills

Seminars and Trainings Attended

- **Data Science and Artificial Intelligence Conference**
  Lyceum of the Philippines – Laguna
  October 2, 2018
- **Leadership Training Seminar ("UNEARTHING THE CORE")**
  Freedom Hall, SHL Building LPU-B
  September 13, 2017
- **PlugIT: JPCS TECH CARAVAN IN BATANGAS ("Connecting the Filipino Youth to the Global Horizon")**
  Freedom Hall, SHL Building LPU-B
  February 17, 2018

Awards and Recognition

- Dean's Lister SY 2015-2016 (2nd Semester), SY 2016-2017 (2nd Semester), 2017-2018 1st - 2nd Semester
- CCENT 2nd Round Qualifier
- Computer System Servicing NCII

CURRICULUM VITAE

Personal Information
Name: John Francis S. Sevilla
Address: Sitio Putol, Maasin Norte, Candelaria, Quezon
Email: francissevilla1824@gmail.com
Date of Birth: April 6, 1998
Citizenship: Filipino
Religion: Roman Catholic
Gender: Male
Age: 20

Educational Background
Elementary: Manuel S. Enverga University Foundation CI.
Secondary: Manuel S. Enverga University Foundation CI.
Tertiary: Lyceum of the Philippines University – Batangas

Skills
- Knowledgeable in Programming Languages such as C#, C++ and Java.
- Graphic Designing using Adobe Photoshop, Adobe Illustrator and Adobe InDesign.
- Capable in using Microsoft Office Word, Excel and Power Point.
- Knowledgeable in Troubleshooting (Hardware and Software).
- Good communication skills.

Seminars and Trainings Attended

- **ALCoB-U, APEC Learning Community Builders Corporation Project**
  LPU-Batangas
  August 23, 2018
- **Data Science and Artificial Intelligence Conference**
  LPU-Laguna
  October 2, 2018
- **JPCS Explore IT and National General Assembly 2018**
  Los Banos, Laguna
  March 18, 2018

Awards and Recognition
- Dean's Lister (2017-2018)
- SAP Business One Certified
- Computer System Servicing NCII Certified