FINAL YEAR PROJECT REPORT

PREDICT O'ANALYSIS

By

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Supervised by

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Bahria University (Karachi Campus)

2018

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Bahria University (Karachi Campus)

Submission Performa

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Title of Report: Predict O'Analysis
Project Supervisor's Name: Engr. Ammarah Khalid

This report is submitted as required for the Project in accordance with the rules laid down by the Bahria University as part of the requirements for the award of the degree of Bachelor of Engineering. I declare that the work presented in this report is my own except where due reference or acknowledgement is given to the work of others.

Signatures of students	Date
(1)……..	……..
(2)…….	…….

Signature of Supervisor	Date
…….	…….

i. Acknowledgments

We are immensely obliged to all those who have helped us in making this project successful. We are highly confound and glorified by other's contributions to the extent that it could not have been completed timely under the given circumstances.

We are tremendously indebt to the faculty of Bahria University Karachi Campus especially our supervisor Engr Ammarah Khalid for their governance and oversight for contributing necessary information related to the project and also to Engr. Ayesha Zaveri and Engr Nabiha Faisal for reinforcing us in the completion of the project.

We would also like to bring into acknowledgement the magnificent assistance of Engr Mursaleen Javed in every part of this endeavor.

ii. Abstract

This study delves into the realm of Predictive Time Series Analysis, with a specific focus on forecasting sales based on historical data. By leveraging previous sales records, this research explores the utilization of time series analysis techniques to predict future sales trends. The methodology involves the application of statistical and data-driven models to unravel patterns and dependencies in the data, ultimately facilitating more accurate and informed sales predictions. The findings of this study offer valuable insights for businesses seeking to optimize their sales strategies and enhance their decision-making processes through data-driven forecasting. This Predict O'Analysis will utilize improved technology in the form of software in order to prevent mishaps. The whole software will be integrated into the company's current IT platforms in order to establish increased way for analysis while allowing all systems and processes to continue without interruption.

iii. Table of contents

Table of Figures

1. Introduction

The Predict O'Analysis project will provide a visual representation of the economic analysis for the company. It will interact with the records of all economic activities (sales and purchases) occurring at the company. Then by doing a vast analysis on those records, a time-series graph will be made because they are the most canonical representations for the flow of goods either sold or produced. Representing business data as time-series typically help managers to visualize the activity of their business. The Predict O'Analysis will utilize improved technology in the form of software in order to prevent mishaps. The whole software will be integrated into the company's current IT platforms in order to establish increased way for analysis while allowing all systems and processes to continue without interruption.

The project will be divided into phases. The first phase will involve research, the second phase will involve the integration of the project.

1.1 Problem Statement:

The technology being used nowadays in companies isn't subject to current days. This results in a huge amount of mishap for the company to maintain their sales and purchases records. They also can't keep up with the records of sales and purchases over a particular time as they weren't present in a graphical or any user friendly form. These surely are suffering from a lack of analysis methods for their business which is done to monitor changes that occur over time that helps ensure you have enough supply on hand to satisfy demand. The Predict O'Analysis project has been created to address and correct these issues and prevent further loss due to old-fashioned technology. The project by using improved time-series forecasting algorithms will integrate improved technology solutions with our current platform in order to establish a more robust environment for the business to proceed.

1.2 Project Scope:

The Predict O'Analysis project will include the design, testing, and delivery of an improved system. All project work will be independent of daily and ongoing operations and all required testing will be done by IT professionals. Predict O'Analysis solution is tested and deployed throughout the organization, all technical documentation is completed and distributed to the appropriate personnel, and a list of future considerations completed and submitted to the administrator of Technology.

1.3 Project Objectives:

The Predict O'Analysis project has been created to show economic indicators in order to prevent further financial loss resulting from lack of forecasting methods i.e. Time-series which are important because they are the most canonical representations for the flow of goods either sold or produced. Representing business data as time-series typically help managers to visualize the activity of their business. Proper forecasting helps ensure you have enough supply on hand to satisfy demand. Forecasting time-series mean that we extend the historical values into the future where measurements are not available yet. Forecasting is typically performed to optimize areas such as inventory levels, production capacity or staffing levels.

2. Background and Literature Review

The technology being used in companies nowadays isn't subject to current days. This results in a huge amount of mishap for the companies to maintain their sales and purchases records. They also can't keep up with the records of sales and purchases over a time as they weren't present in a graphical or any user-friendly form. They surely are suffering from a lack of forecasting methods for their business which is done to monitor changes that occur over time. Proper forecasting helps ensure you have enough supply on hand to satisfy demand. The Predict O'Analysis project has been created to address and correct these issues and prevent further loss due to old-fashioned technology. The project by using improved data mining algorithms of forecasting time-series, will integrate improved technology solutions with our current platform to establish a more robust environment for the business to proceed.

In market to represent the sale pattern of the products at various stages of its life cycle generally time-varying demand functions are used. Normally, when a seasonal product comes to the market, the demand for these products exists for a certain period only. As the season goes on the demand decreases continuously and ultimately it becomes zero. In this specific time, which is known as a season, demand is maximum at the beginning of the season and after it the demand decreases as the time increases. It becomes zero at the end of the season. This type of seasonal demand is assumed to be practical and realistic. Makridakis [1] presented the accuracy of time series methods resulting in forecasting competition of data.

[1] S. Makridakis, A. Andersen, R. Carbone, R. Fildes, M. Hibon, R.Lewandowski, J. Newton, E. Parzen, R. Winkler, "The accuracy of extrapolation (time series) methods: Results of a forecasting competition", April/June 1982

3. Analysis and Design

Time series forecasting (See **Appendix** A) methods produce forecasts based solely on historical values and they are widely used in business situations where forecasts of a year or less are required.

SQL Server analysis services has two algorithms ARTXP and ARIMA integrated in the server.

ARTXP is to predict next likely value and ARIMA is to calculate accuracy for long term prediction. If you want to select anyone method that can be done too.

3.1 Context Diagram

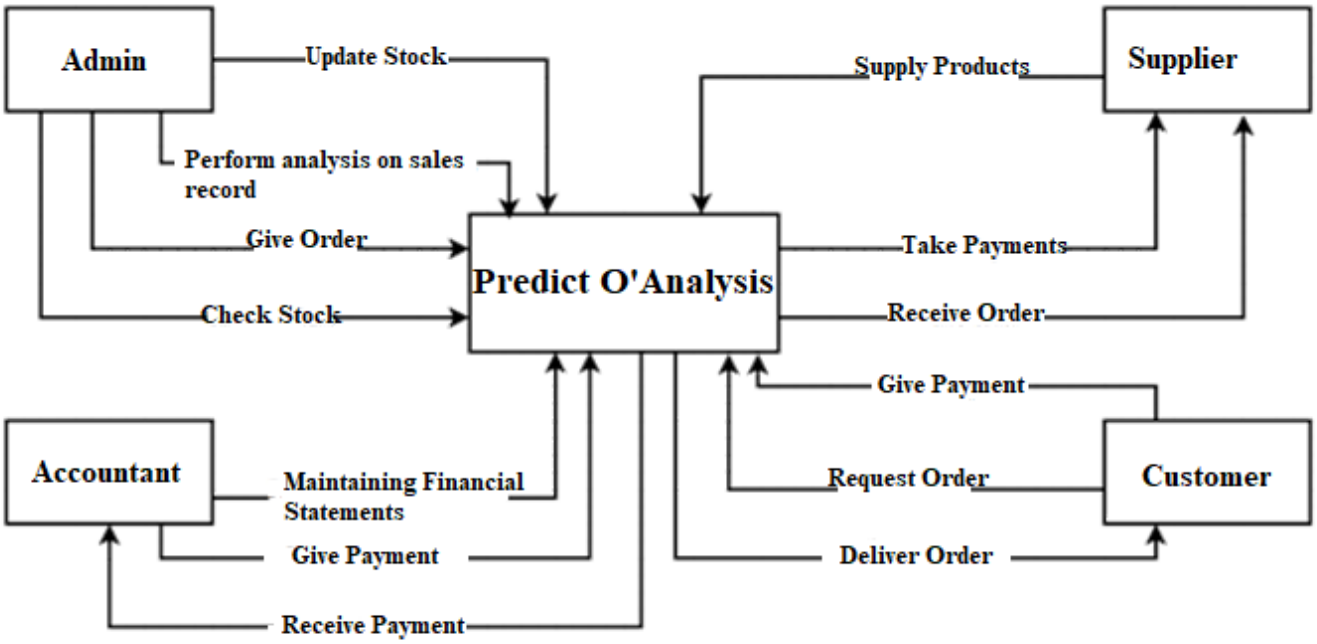


Fig. 1: Context Diagram

3.2 Workflow

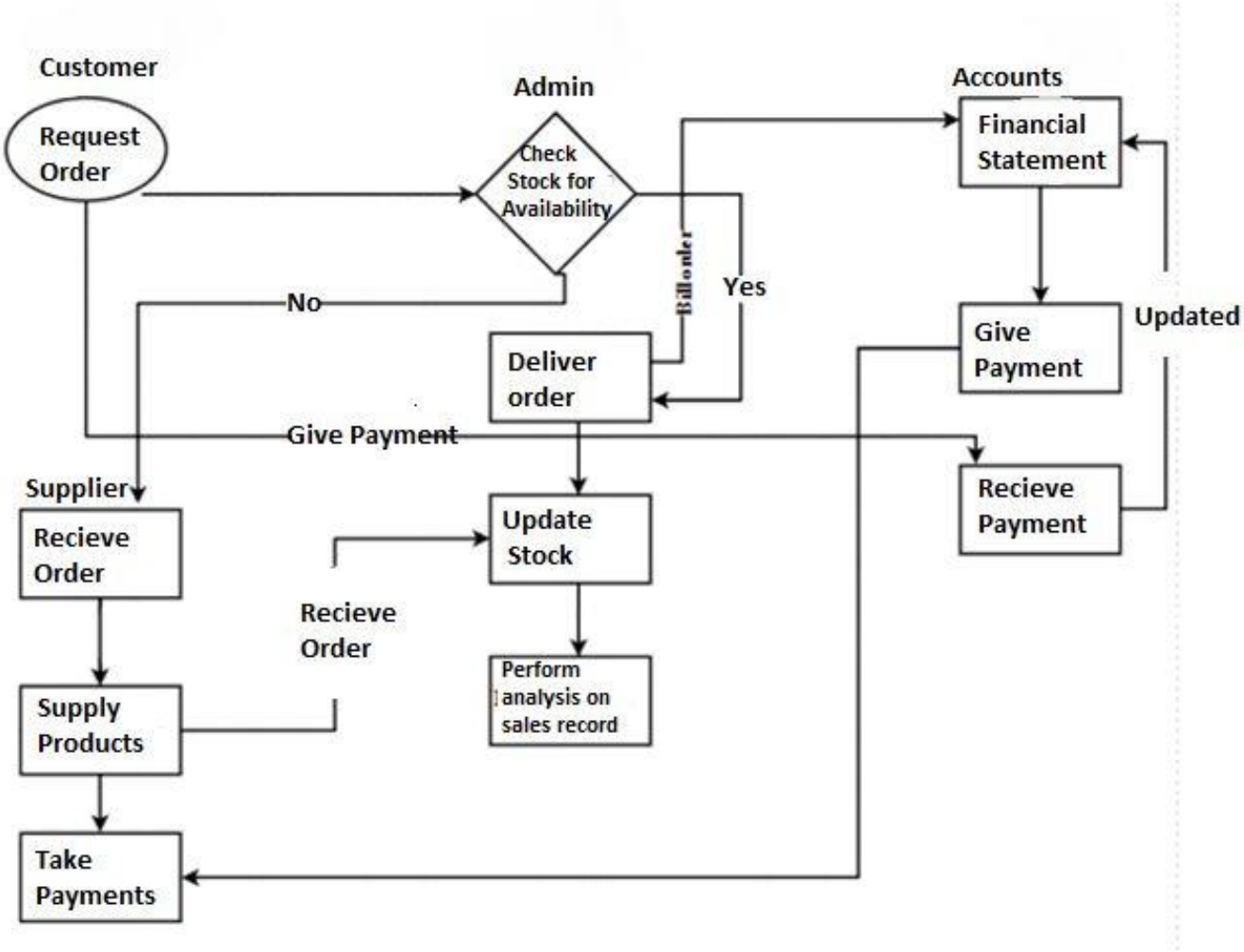


Fig. 2: Workflow Diagram

3.3 Actor Use case Diagram

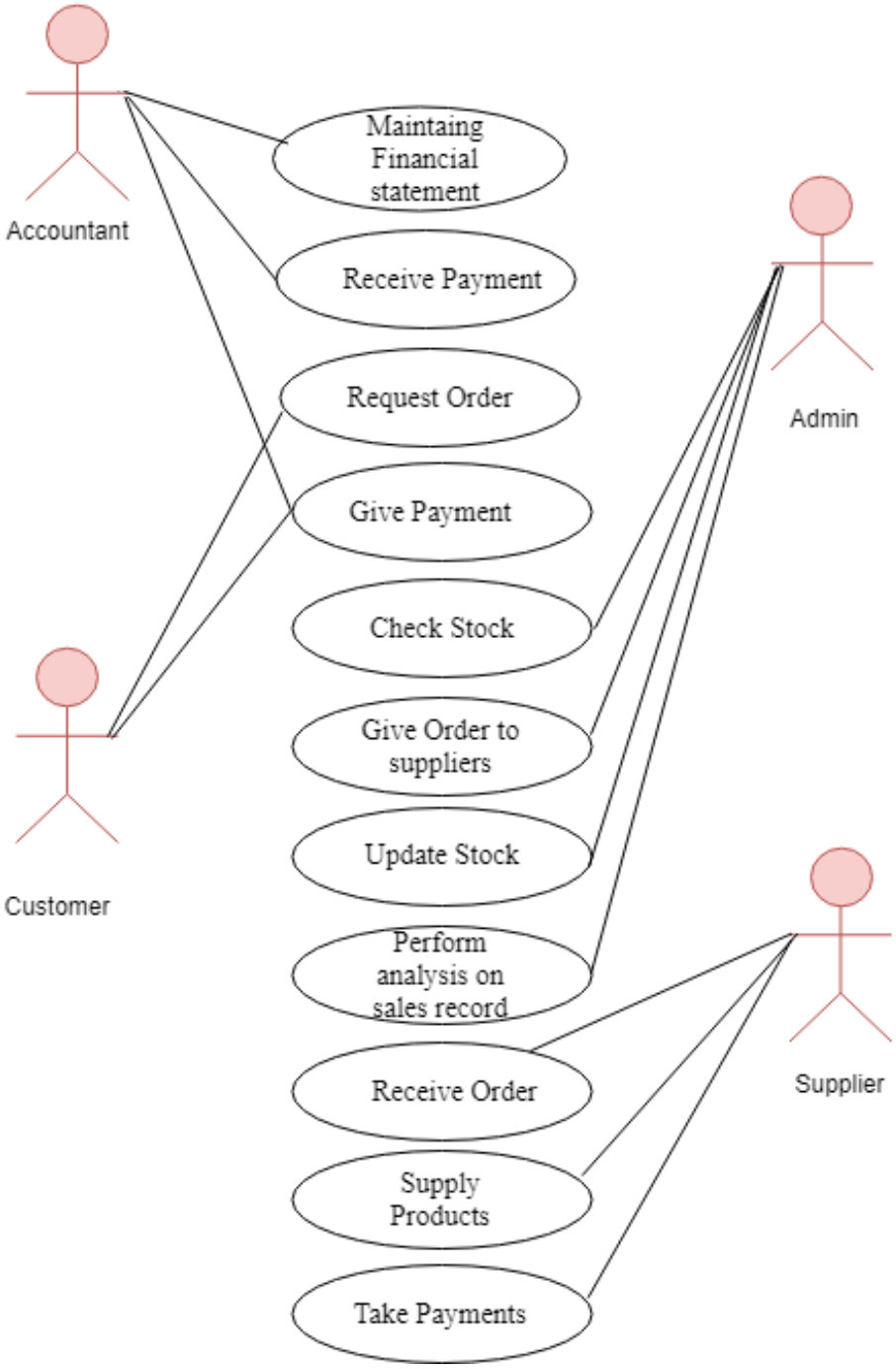


Fig. 3: Actor Use Case Diagram

3.4 ERD

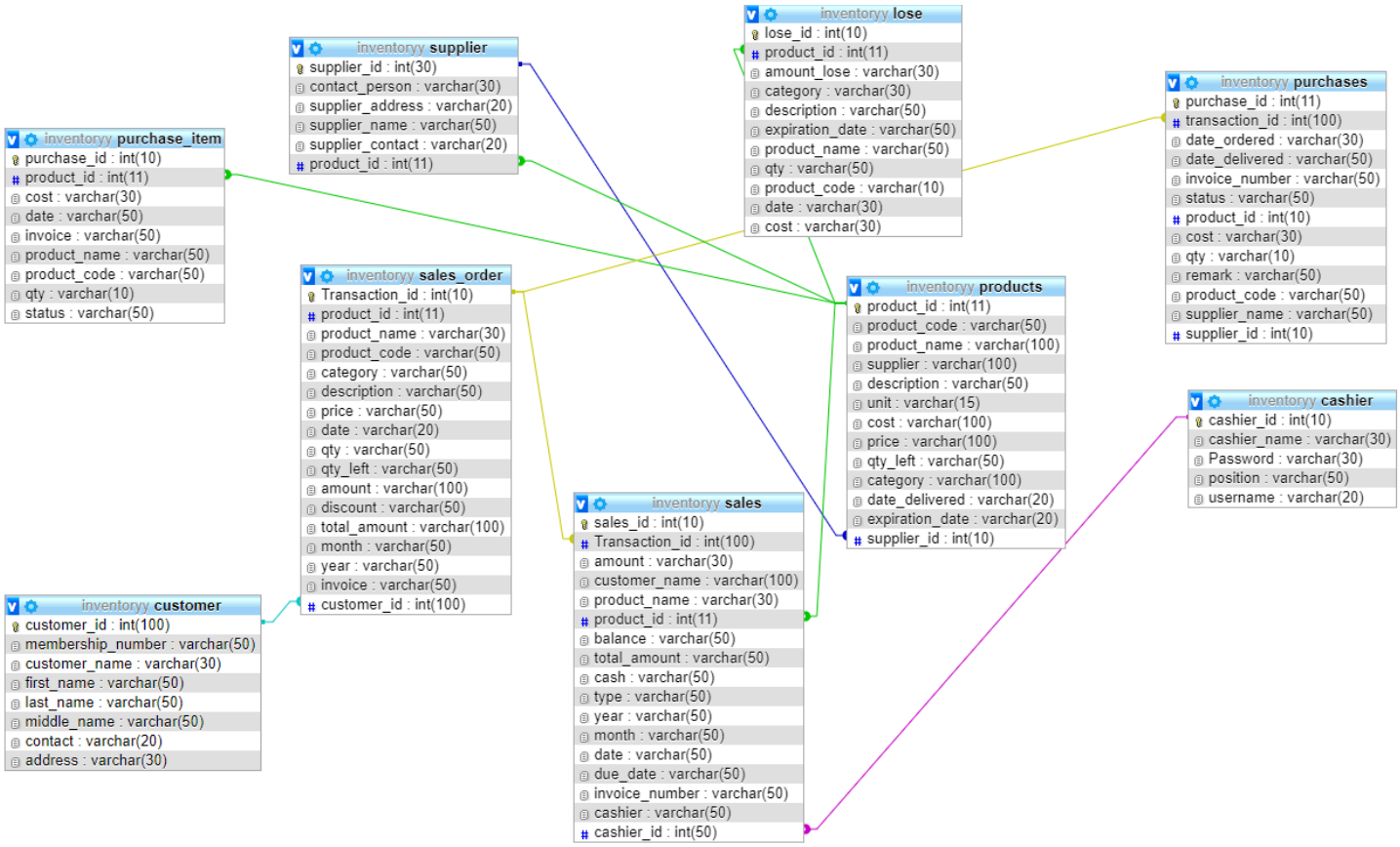


Fig. 4: Entity Relation Diagram

4. Methodology

There are two login panels to the project Predict O'Analysis. The first login is of an admin and the second is of the cashier. In the admin panel there is a dashboard layout where the admin can add the customer and the supplier. There is a side bar on the left side which contains home, product, customer, purchase order list, purchase order form, supplier, reports, charts. The supplier details will also be added by the admin the type of products they are going to supply and the due date of the delivery of the product. There are different product category also supplied by the supplier in the purchase order list there is a list that shows which supplier is supposed to deliver a product in what quantity and what is the cost of the products. In the purchase order form, we can order products from the specific supplier. In the report option there are different types of reports sales report, inventory reports, list of products expired. And in the graph option there is a dropdown list of different types of charts and graphs. There is a graph of category which tells the sales of product in their respective category, the graph for losses tells us which product has been returned and went in a loss. The monthly and yearly sales chart tells us the sales of product in a month and annually.

The second login is of cashier where the cashier can add products and chose a customer for transaction.

4.1 Work Breakdown Structure

Layout: Classic Schedule Layout | Filter: All Activities

Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish	Total Float
1-1 Predict O'Analysis		203	115	13.73%	26-Jul-17 A	11-May-18	4
1-1.1 Initialization		57	0	100%	26-Jul-17 A	03-Aug-17 A	
A1000	Project Proposal	3	0	100%	26-Jul-17 A	29-Jul-17 A	
A1010	Project Defence	1	0	100%	02-Aug-17 A	02-Aug-17 A	
A1030	Project Charter and Project S	1	0	100%	03-Aug-17 A	03-Aug-17 A	
1-1.2 Planning		64	5	0%	11-Sep-17 A	15-Dec-17	104
1-1.2.1 Requirements gathering		59	5	0%	11-Sep-17 A	08-Dec-17	109
A1060	Time series and forecasting	1	0	100%	18-Sep-17 A	18-Sep-17 A	
A1320	Team meeting	5	5	0%	04-Dec-17	08-Dec-17	
A1050	Search for demanding techn	2	0	0%	14-Sep-17 A	17-Sep-17 A	
A1040	Project Analysis	3	0	0%	11-Sep-17 A	13-Sep-17 A	
1-1.2.2 SRS Documentation		55	5	0%	25-Sep-17 A	08-Dec-17	104
A1290	Work flow Diagram	1	0	0%	26-Sep-17 A	27-Sep-17 A	
A1370	Sequence Diagram	1	0	0%	24-Oct-17 A	24-Oct-17 A	
A1520	Project Scheduling	5	5	0%	04-Dec-17	08-Dec-17	104
A1340	Process Model	2	0	100%	15-Nov-17 A	16-Nov-17 A	
A1280	Data Flow/Context Diagram	1	0	100%	25-Sep-17 A	25-Sep-17 A	
A1360	Component Diagram	1	0	100%	20-Oct-17 A	23-Oct-17 A	
A1350	Architecture Diagram	3	0	0%	17-Oct-17 A	19-Oct-17 A	
A1310	Actor Use Case Diagram	1	0	100%	02-Oct-17 A	02-Oct-17 A	
1-1.2.3 Project Management Plan		13	0	0%	01-Nov-17 A	22-Nov-17 A	
A1390	Work Break Down Structure	3	0	0%	01-Nov-17 A	03-Nov-17 A	
A1440	Risk Management Plan	2	0	100%	20-Nov-17 A	22-Nov-17 A	
A1430	Risk Identification	3	0	0%	14-Nov-17 A	16-Nov-17 A	
A1410	Project Calender	2	0	0%	06-Nov-17 A	07-Nov-17 A	
A1400	Gantt Chart	3	0	0%	01-Nov-17 A	04-Nov-17 A	
1-1.2.4 Product Planning		17	0	0%	23-Nov-17 A	15-Dec-17 A	
A1490	Testing Plan	2	0	0%	11-Dec-17 A	13-Dec-17 A	
A1470	Product Design	3	0	0%	01-Dec-17 A	05-Dec-17 A	
A1450	Functionality Identification	3	0	100%	23-Nov-17 A	27-Nov-17 A	
A1500	Deployment Plan	2	0	0%	14-Dec-17 A	15-Dec-17 A	
1-1.3 Execution And Control		141	105	0%	01-Nov-17 A	27-Apr-18	4
1-1.3.1 Product Design		23	0	0%	01-Nov-17 A	18-Dec-17 A	
A1080	tutorials	1	0	100%	01-Nov-17 A	01-Nov-17 A	
A1090	Prepare Mid evaluation	1	0	100%	13-Dec-17 A	18-Dec-17 A	
A1100	One Running Module	20	0	0%	21-Nov-17 A	18-Dec-17 A	
1-1.3.2 Product Review		4	0	0%	11-Dec-17 A	13-Dec-17	109
A1110	Prepare SRS	1	0	0%	11-Dec-17 A	11-Dec-17 A	
A1140	Prepare MID FYP Presentatic	1	0	0%	13-Dec-17 A	13-Dec-17	109
1-1.3.3 Coding		60	60	0%	25-Jan-18 A	23-Feb-18	49
A1190	Predict O'Analysis	60	60	0%	25-Jan-18 A	23-Feb-18	49
1-1.3.4 Coding Review		5	6	0%	09-Apr-18 A	11-Dec-17	103
A1510	Code review	5	6	0%	09-Apr-18 A	11-Dec-17	103
1-1.3.5 Testing		105	105	0%	04-Dec-17	27-Apr-18	4
A1170	test data mining services	5	5	0%	16-Apr-18*	20-Apr-18	9
A1301	Project completion	5	5	0%	04-Dec-17	08-Dec-17	
A1200	Check browser compatibility	3	3	0%	19-Apr-18*	23-Apr-18	8
A1300	Bugsreporting	5	5	0%	23-Apr-18*	27-Apr-18	4
1-1.4 Closing		24	24	0%	10-Apr-18	11-May-18	12
1-1.4.1 Documentation		9	9	0%	10-Apr-18	20-Apr-18	17
A1210	Prepare FYP report	8	8	0%	11-Apr-18*	20-Apr-18	20
A1220	Prepare Final Presentation	1	1	0%	10-Apr-18*	10-Apr-18	17
1-1.4.2 Submission		1	1	0%	20-Apr-18	20-Apr-18	12
A1230	Burn Project and Report in C	1	1	0%	20-Apr-18*	20-Apr-18	12
1-1.4.3 Project Defence		12	12	0%	26-Apr-18	11-May-18	104
A1530	Final Presentation	5	5	0%	07-May-18*	11-May-18	104
A1540	Deployment	1	1	0%	26-Apr-18*	26-Apr-18	104

Fig. 5: Work Breakdown Structure

4.2 Gantt Chart

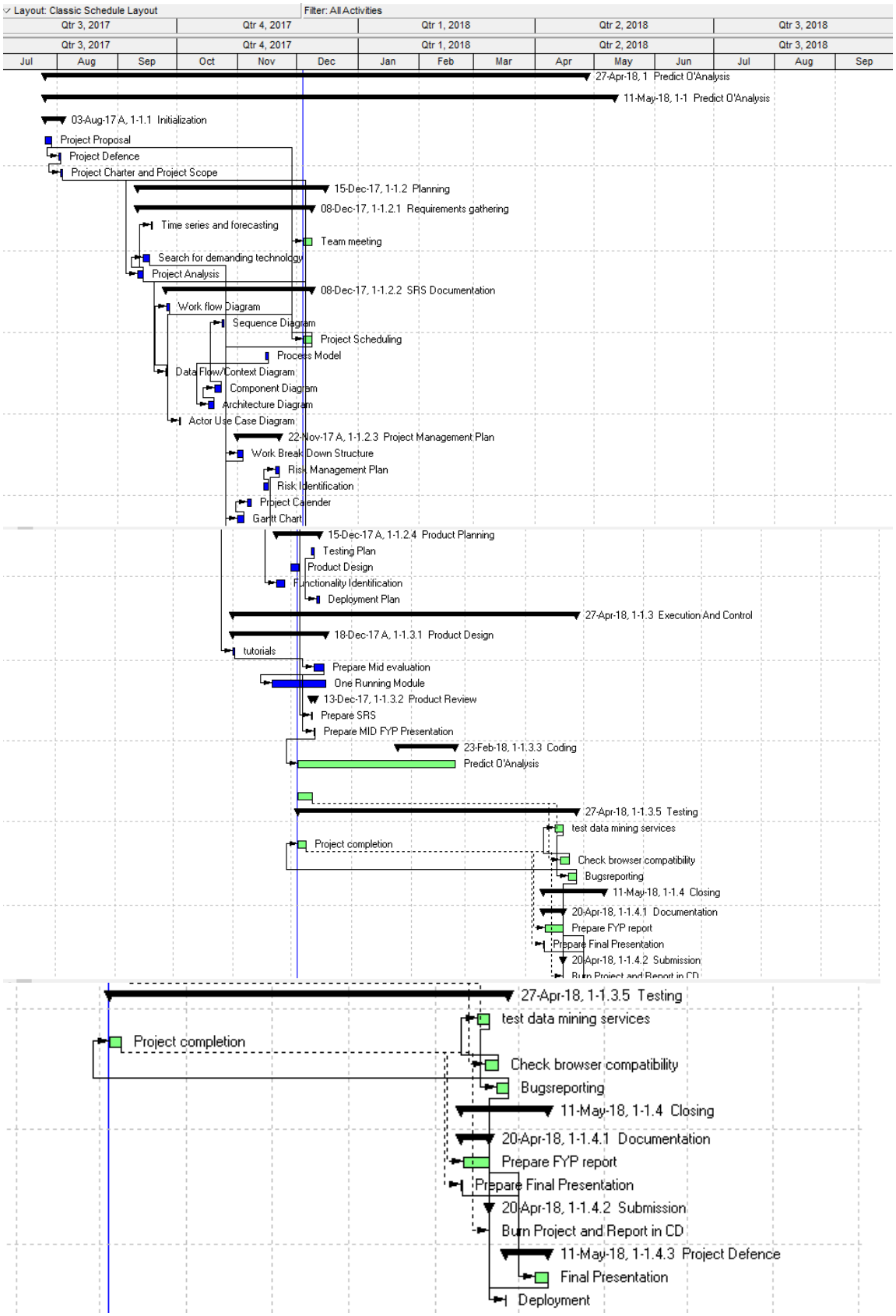


Fig. 6: Gantt Chart

5. Implementation

yearlychart.php

This code is to represent the charts visually to do analysis on sales record

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="description" content="">
  <meta name="author" content="">

  <title>Predict O'Analysis</title>

  <link rel="shortcut icon" href="logo.png">
  <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
  <link href="../dist/css/sb-admin-2.css" rel="stylesheet">
  <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">
  <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></scrip>
      <style>
        #chartdiv {
          width: 100%;
          height: 500px;
        }
      </style>
      <link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
      <script src="lib/jquery.js" type="text/javascript"></script>
      <script src="src/facebox.js" type="text/javascript"></script>
```

```
<script type="text/javascript">
 jQuery(document).ready(function($) {
  $('a[rel*=facebox]').facebox({
   loadingImage : 'src/loading.gif',
   closeImage   : 'src/closelabel.png'
  })
 })
</script>
<script language="javascript">
 function Clickheretoprint()
 {
  var disp_setting="toolbar=yes,location=no,directories=yes,menubar=yes,";
  disp_setting+="scrollbars=yes,width=800, height=400, left=100, top=25";
  var content_vlue = document.getElementById("content").innerHTML;

  var docprint=window.open("","",disp_setting);
  docprint.document.open();
  docprint.document.write('</head><body onLoad="self.print()" style="width: 1000px;
height:400; font-size: 20px; font-family: arial;">');
  docprint.document.write(content_vlue);
  docprint.document.close();
  docprint.focus();
 }
</script>
</head>
<body>
 <?php include('navfixed.php');?>
 <div id="page-wrapper">
  <div class="container-fluid">
   <div class="row">
    <div class="col-lg-12">
     <h1 class="page-header">Yearly Sales</h1>
    </div>
    <div class="content" id="content">
     <p> Yearly Sales Chart</p>
```

```
            <div class="row">/
              <?php
              include('connect.php');
              $sql = "SELECT *, year as yea, SUM(amount) as qcount FROM sales GROUP BY year
";
              $query = $db->prepare($sql);
              $query->execute();
              $fetch = $query->fetchAll();
              foreach ($fetch as $key => $value) {
                $data[] = array('title'=>$value['yea'], 'value'=>$value['qcount']);
              }
              $d = json_encode($data);
              ?>
              <div id="chartdiv"></div>
            </div>
          </div>
        </div>
        <a href="javascript:Clickheretoprint()" style="font-size:15px"; class="btn btn-primary"><i
class="fa fa-print"></i>Print</a>
      </div>
    </div>
    <script src="plugins/amcharts/amcharts.js"></script>
    <script src="plugins/amcharts/serial.js"></script>
    <script src="plugins/export/export.min.js"></script>
    <link rel="stylesheet" href="plugins/export/export.css" type="text/css" media="all" />
    <script src="plugins/amcharts/themes/pattern.js"></script>
    <script>

      var raw = '<?php echo $d; ?>';
      var data = JSON.parse(raw);
      var chart = AmCharts.makeChart( "chartdiv", {
        "type": "serial",
        "theme": "pattern",
        "dataProvider": data,
        "valueAxes": [ {
```

```
            "gridColor": "#FFFFFF",
            "gridAlpha": 0.2,
            "dashLength": 0
          } ],
          "gridAboveGraphs": true,
          "startDuration": 1,
          "graphs": [ {
            "balloonText": "[[category]]: <b>Total Sales [[value]]</b>",
            "fillAlphas": 0.8,
            "lineAlpha": 0.2,
            "type": "column",
            "valueField": "value"  } ],
          "chartCursor": {
            "categoryBalloonEnabled": false,
            "cursorAlpha": 0,
            "zoomable": false },
          "categoryField": "title",
          "categoryAxis": {
            "gridPosition": "start",
            "gridAlpha": 0,
            "tickPosition": "start",
            "tickLength": 2 },
          "export": {
            "enabled": true
          }});

      </script>

  </body>
</html>
```

6. Testing

6.1 Black Box Testing

6.1.1 Test Cases

6.1.1.1 Home Login Screen

Test Case ID: Log_01	**Test Designed by:** AM
Test Priority (Low, Medium, High): High	**Test Designed date:** 5th May, 2018
Module Name: Home Login Screen	**Test Execution date:** 7th May, 2018
Test Title: Testing of valid username and password	
Description: Testing of verification of valid username and password	

NO.	STEPS	TEST DATA	EXPECTED RESULTS	ACTUAL RESULT	STATUS (PASS/ FAIL)
1.	Start the login page		Logged in successful	Admin navigates to the home screen	Pass
2.	Provide valid username	Username = admin			
3.	Provide valid password	Password = admin123			
4.	Click on login button				

6.1.1.2 Cashier Login Screen

Test Case ID: Log_02	**Test Designed by:** AM
Test Priority (Low, Medium, High): High	**Test Designed date:** 5th May, 2018
Module Name: Cashier Login Screen	**Test Execution date:** 8th May, 2018
Test Title: Testing of valid username and password	
Description: Testing of verification of valid username and password	

NO.	STEPS	TEST DATA	EXPECTED RESULTS	ACTUAL RESULT	STATUS (PASS/ FAIL)
1.	Start the login page		Logged in successful	Cashier navigates to the payment screen	Pass
2.	Provide valid username	Username = cashier			
3.	Provide valid password	Password = 12345			
4.	Click on login button				

6.1.1.3 Purchase Order Screen

Test Case ID: Pur_01	**Test Designed by:** JA
Test Priority (Low, Medium, High): High	**Test Designed date:** 2nd May, 2018
Module Name: Purchase Order Screen	**Test Execution date:** 5th May, 2018
Test Title: Testing of purchased items	
Description: Testing of verification of items added in purchase list	

NO.	STEPS	TEST DATA	EXPECTED RESULTS	ACTUAL RESULT	STATUS (PASS/ FAIL)
1.	Navigate to the Purchase Order Page		Purchase Order successful	Navigate to print order form screen	Pass
2.	Select Product(s)	Product = snacks, beverages, frozen foods			
3.	Select Quantity				
4.	Click on add product button				

6.1.1.4 Yearly Sales Graph Screen

Test Case ID: Sal_03	**Test Designed by:** AM
Test Priority (Low, Medium, High): High	**Test Designed date:** 1st May, 2018
Module Name: Yearly Sales Graph Screen	**Test Execution date:** 5th May, 2018
Test Title: Testing of yearly sales graphs	
Description: Verify that yearly sales record is visually represented	

NO.	STEPS	TEST DATA	EXPECTED RESULTS	ACTUAL RESULT	STATUS (PASS/ FAIL)
1.	Navigate to yearly sales graph screen		Visual representation of sales	Yearly sales record is displayed	Pass

6.1.1.5 Sales Receipt Screen

Test Case ID: Res_02	**Test Designed by:** JA
Test Priority (Low, Medium, High): Medium	**Test Designed date:** 4th May, 2018
Module Name: Sales Receipt Screen	**Test Execution date:** 9th May, 2018
Test Title: Testing of receipt generation	
Description: Verify that receipt is generated with desired requirements	

NO.	STEPS	TEST DATA	EXPECTED RESULTS	ACTUAL RESULT	STATUS (PASS/ FAIL)
1.	Navigate to payment screen		Receipt generation print view	Navigate to receipt print view	Pass
2.	Click on print button				

6.2 White Box Testing

6.2.1 Generate Chart Data

```
function Clickheretoprint()   {1}
    {
        var disp_setting="toolbar=yes,location=no,directories=yes,menubar=yes,";
        disp_setting+="scrollbars=yes,width=800, height=400, left=100, top=25";
        var content_vlue = document.getElementById("content").innerHTML;

        var docprint=window.open("","",disp_setting);
        docprint.document.open();                                                    {2}
        docprint.document.write('</head><body onLoad="self.print()" style="width: 1000px;
height:400; font-size: 20px; font-family: arial;">');
        docprint.document.write(content_vlue);
        docprint.document.close();
        docprint.focus();
    }
```

```
foreach ($fetch as $key => $value) {
            $data[] = array('title'=>$value['cat'], 'value'=>$value['qcount']);
        }                                                                            {3}
        $d = json_encode($data);
```

```
<?php
                include('connect.php');                                              {4}
                $result = $db->prepare("SELECT * FROM sales_order");
                $result->execute();
                for($i=0; $row = $result->fetch(); $i++){
                  ?>
                  <tr class="record">                                                {5}
                    <td><?php echo $row['invoice']; ?></td>
                    <td><?php echo $row['name']; ?></td>
                    <td><?php echo $row['dname']; ?></td>
                    <td><?php echo $row['category']; ?></td>
                    <td><?php echo $row['date']; ?></td>
                  </tr>
                  <?php
```

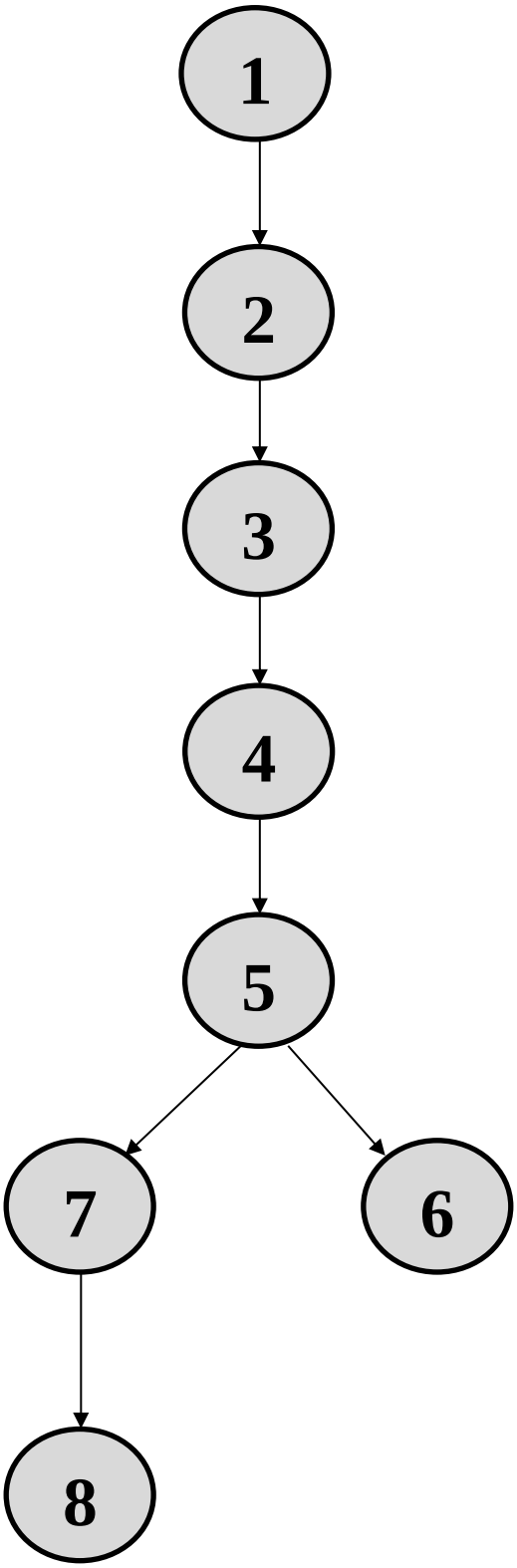
```
<script>
    var chartData = generateChartData();
    var chart = AmCharts.makeChart("chartdiv", {
      "type": "serial",
      "theme": "light",
      "marginRight": 80,                                                             {6}
      "autoMarginOffset": 20,
      "marginTop": 7,
      "dataProvider": chartData,
      "valueAxes": [{
        "axisAlpha": 0.2,
        "dashLength": 1,
        "position": "left"
      }]
```

```
function generateChartData() {
        var chartData = [];
        var firstDate = new Date();
        firstDate.setDate(firstDate.getDate() - 5);
        var visits = 1200;
        for (var i = 0; i < 1000; i++) {
            var newDate = new Date(firstDate);
            newDate.setDate(newDate.getDate() + i);

            visits += Math.round((Math.random()<0.5?1:-1)*Math.random()*10);

            chartData.push({
                date: newDate,
                visits: visits
            });
        }
        return chartData;
    }
```

{7}

{8}

6.2.2 Graph Notation



6.2.3 Cyclomatic Complexity

- Number of Nodes (N) = 8
- Number of Edges (E) = 7
- (E – N) + 2 = 1
- Predicate + 1 = 1
- R = 1

7. Results

7.1 Admin Login Screen

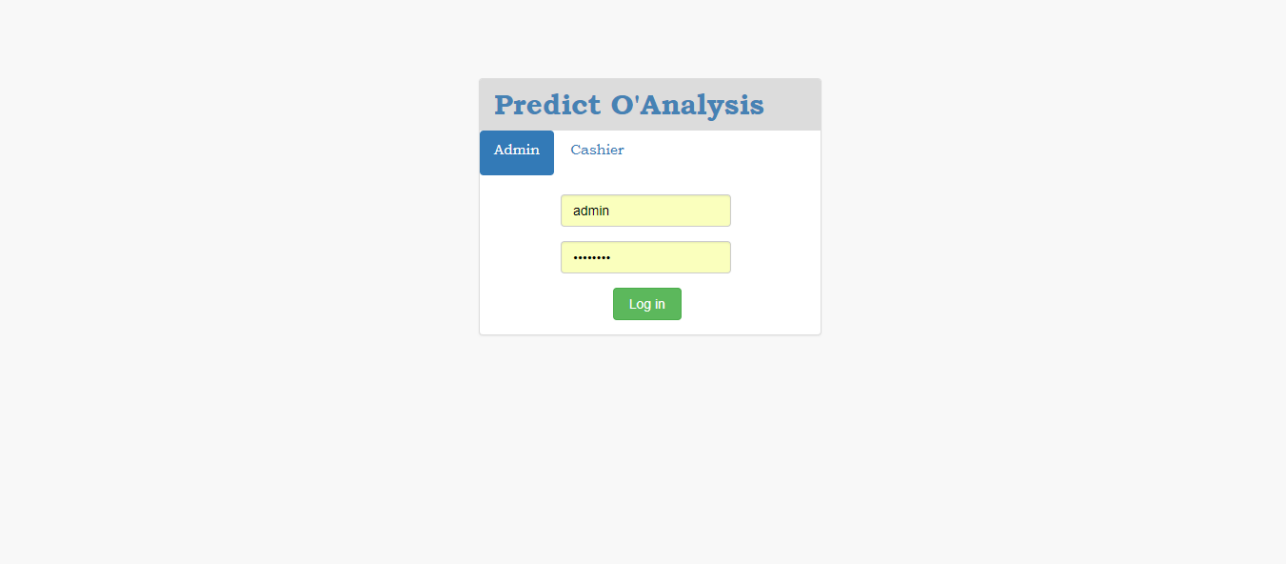


Fig. 7: Admin Login Screen

Detail about the above interface:
The above shown interface will allow the authorized user to gain access to the system by providing a valid username and password. That will ensure security to the system.

7.2 Admin Home Screen

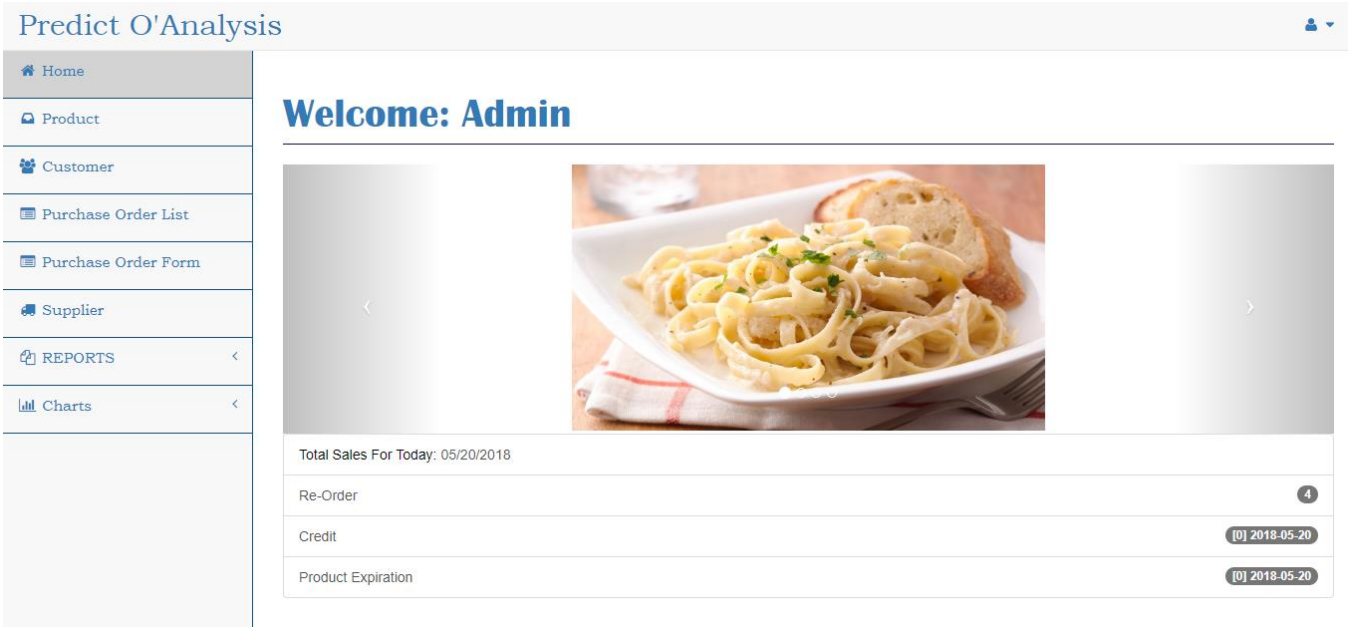


Fig. 8: Admin Home Screen

Detail about the above interface:

This is the home page for admin. It shows the total sales per day, and re-order of items which are less than 50 in quantity.

7.3 Product List Screen

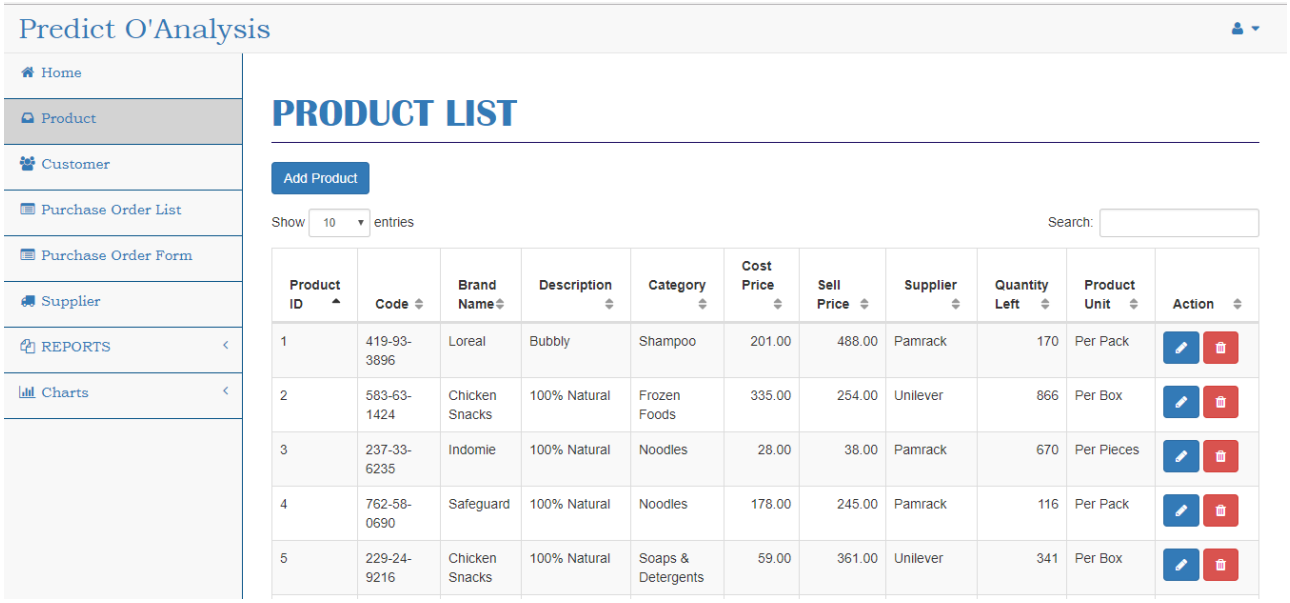


Fig. 9: Product List Screen

Detail about the above interface:

This screen shows the list of the products currently in stock. They can be added, deleted as per requirement.

7.4 Add Product Screen

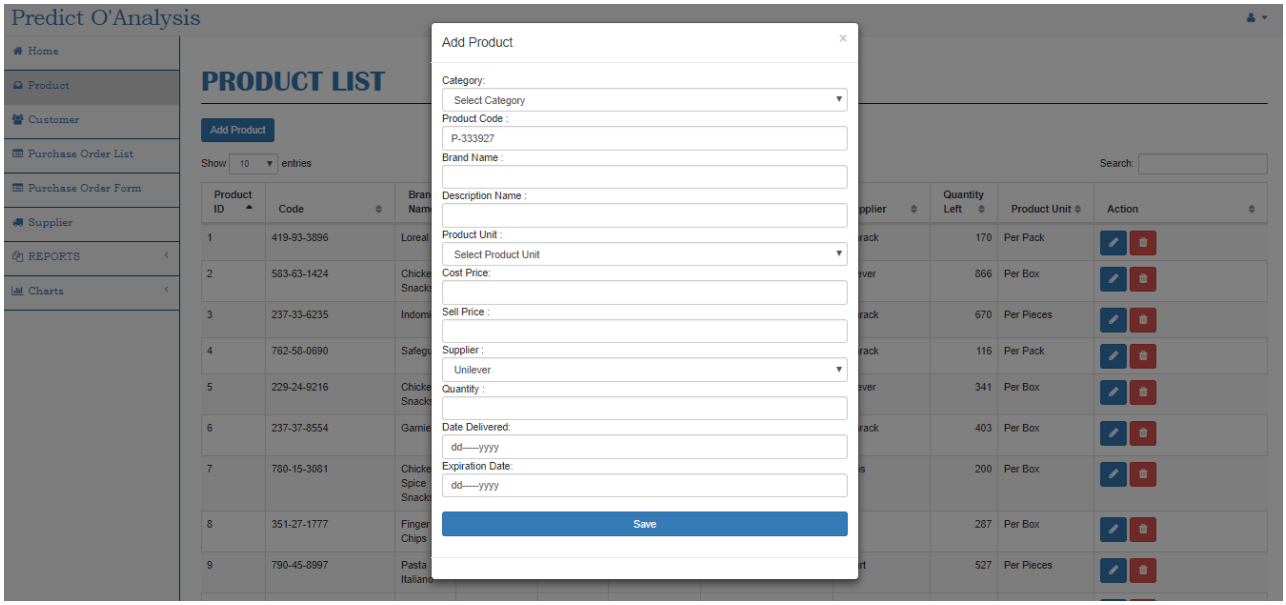


Fig. 10: Add Product Screen

Detail about the above interface:

This screen shows the form for adding the products into the list by filling the fields.

7.5 Customer List Screen

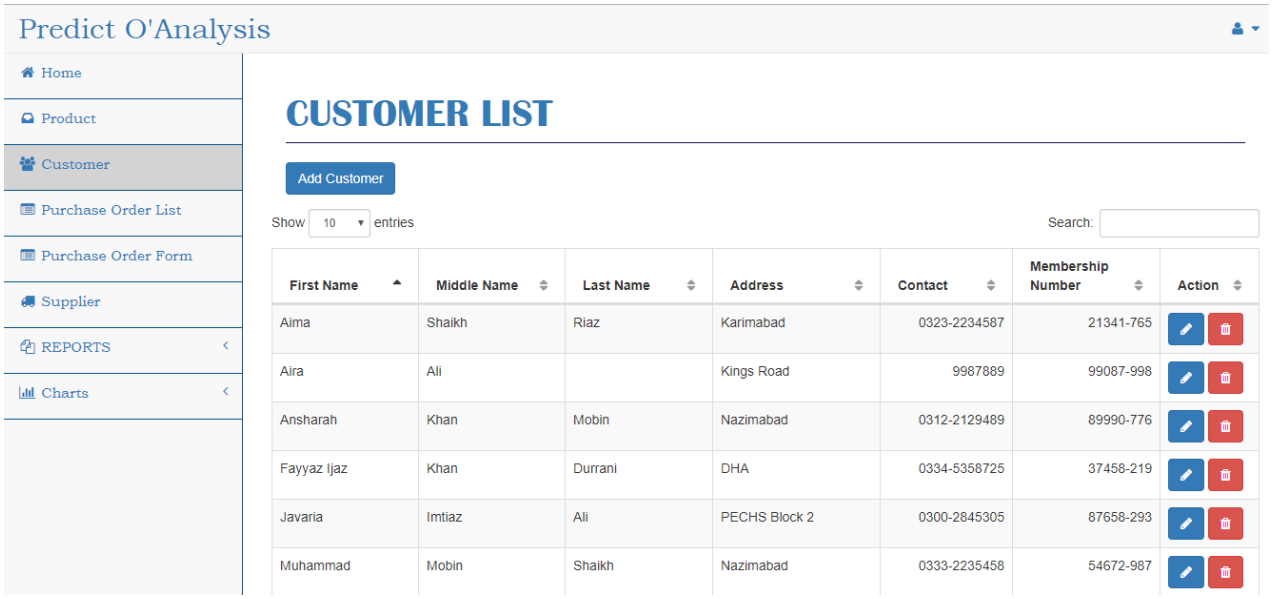


Fig. 11: Customer List Screen

Detail about the above interface:

This screen shows the list of the customers which are members. Important information such as name, address, contact and membership number is being shown in the list.

7.6 Purchase Order List

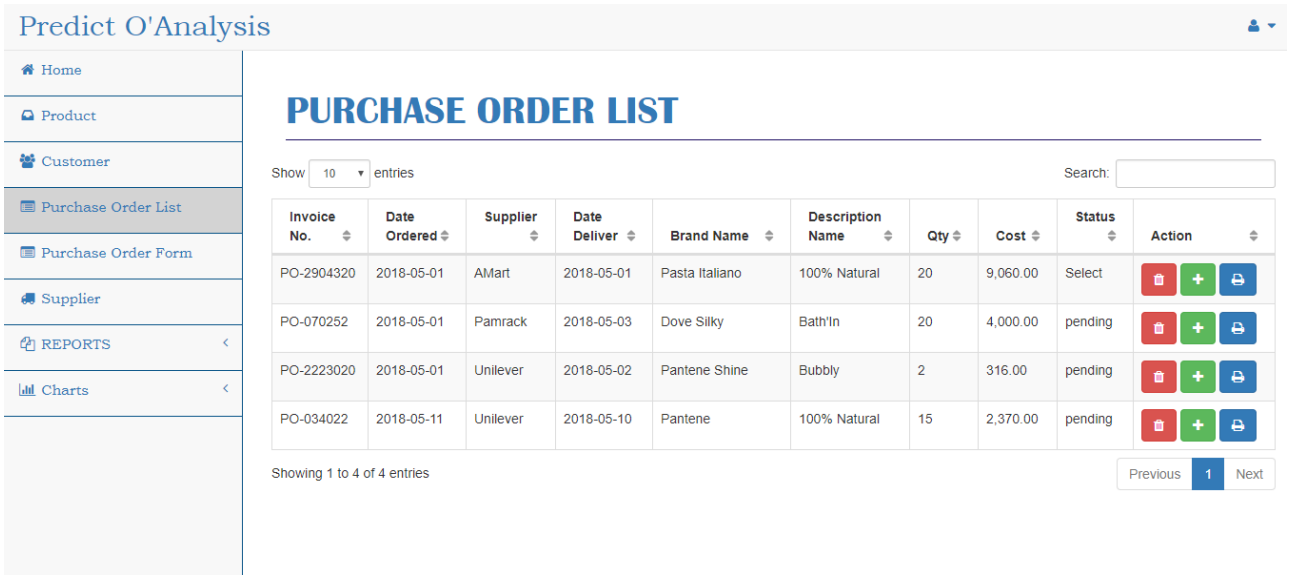


Fig. 12: Purchase Order List Screen

Detail about the above interface:

This interface will show the order that has been purchased from the authorized suppliers.

7.7 Purchase Order Screen

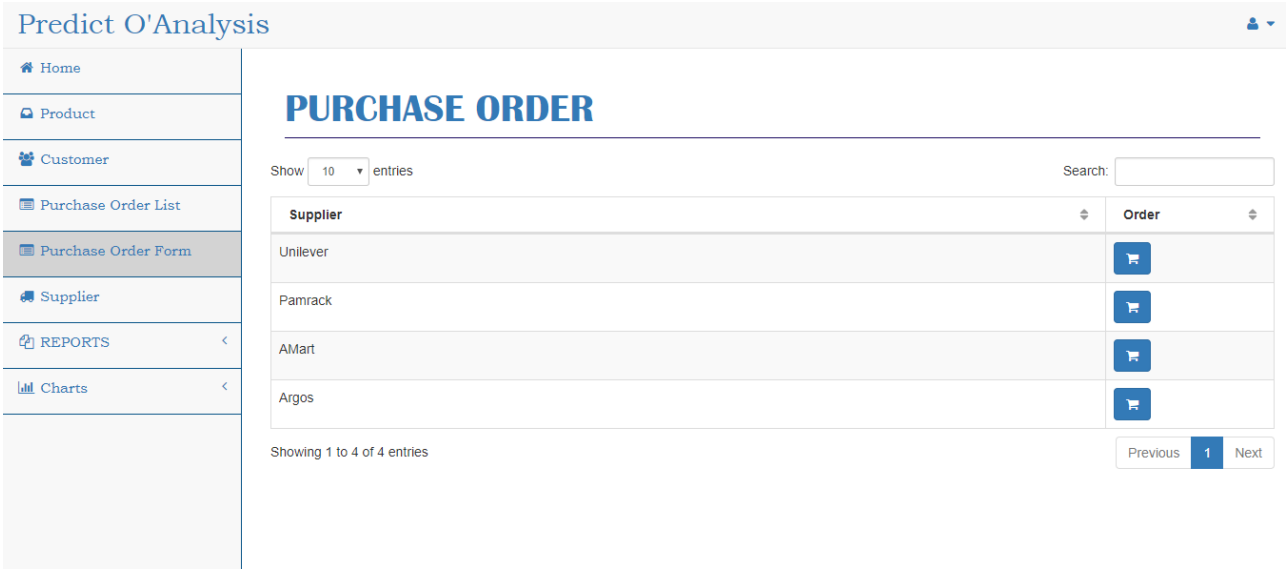


Fig. 13: Purchase Order Screen

Detail about the above interface:

This screen shows the purchase order form. The purchase can only be done with the suppliers who are already authorized with the company.

7.8 Supplier Screen

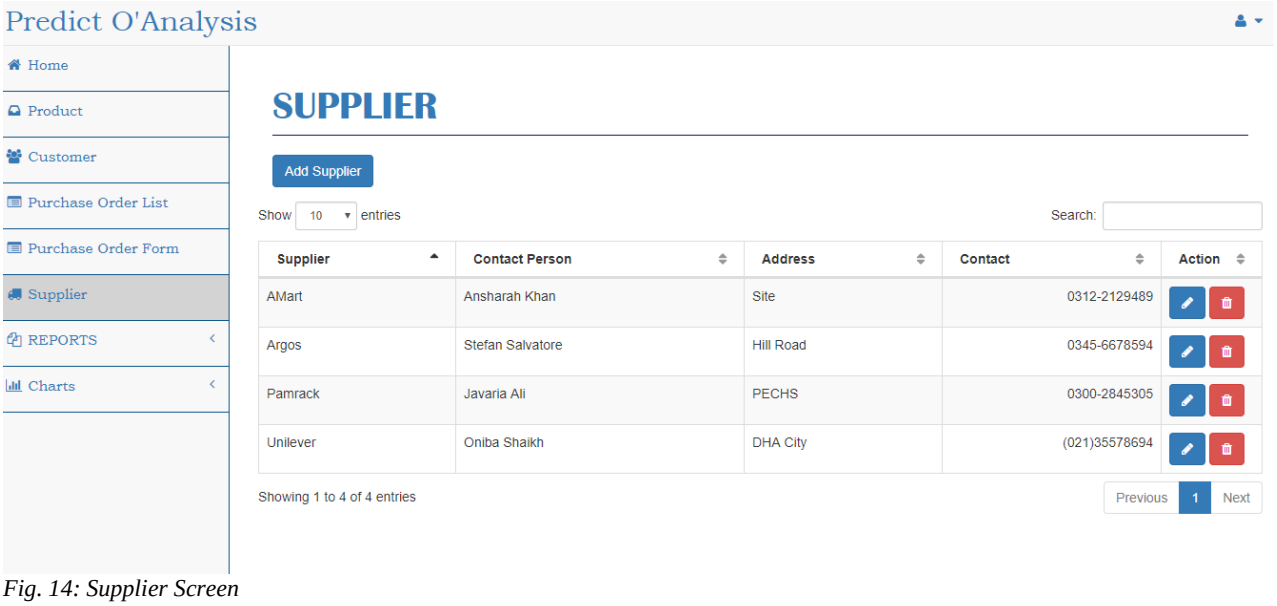


Fig. 14: Supplier Screen

Detail about the above interface:

This screen shows the name and address of the respective authorized suppliers.

7.9 Sales Report Screen

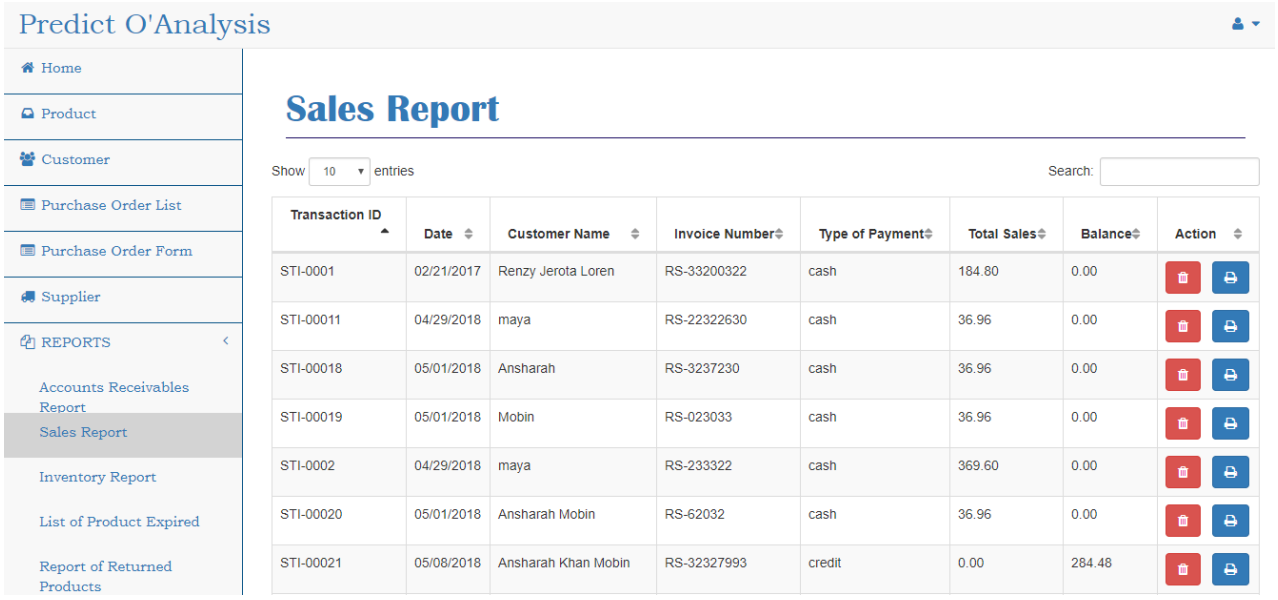


Fig. 15: Sales Report Screen

Detail about the above interface:

This screen shows the sales report of the items being sold.

7.10 Yearly Sales Screen

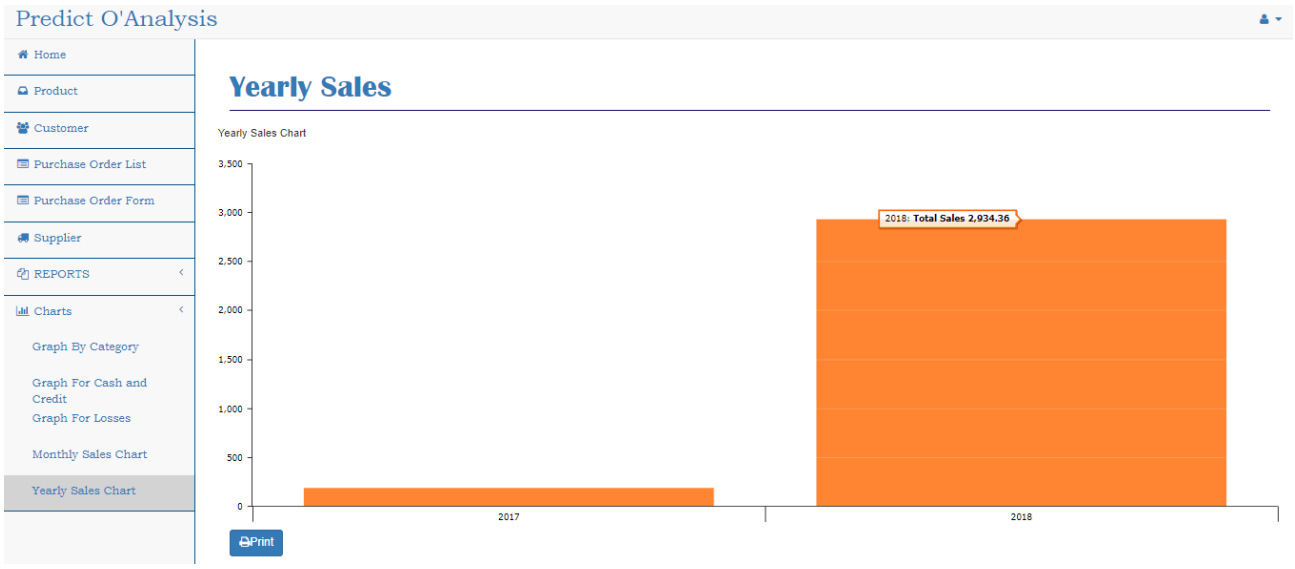


Fig. 16: Yearly Sales Screen

Detail about the above interface:

This screen shows the yearly sales graph of the company. This is visually represented in the form of graphs so it is easy for respective person to analyze the sales record.

7.11 Yearly Graph Screen

Fig. 17: Yearly Graph Screen

Detail about the above interface:

This screen shows a line graph for yearly sales of item. Sales in a particular month can also be seen in this graph.

7.12 Monthly Sales Screen

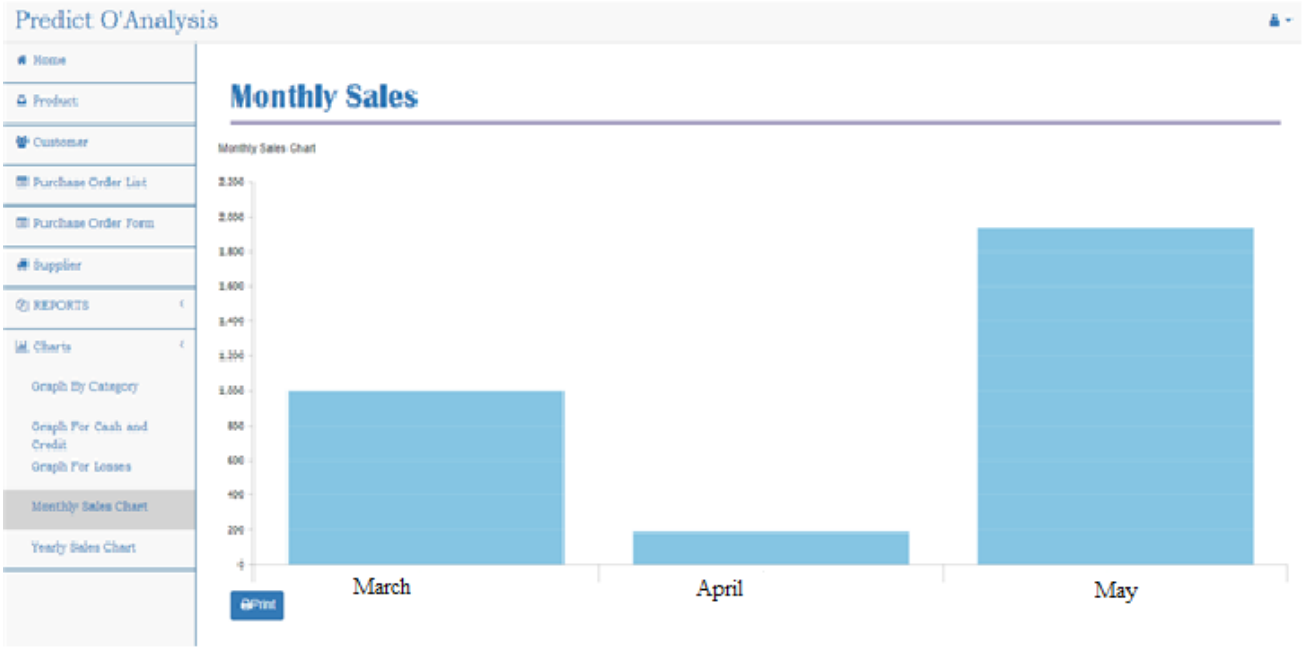


Fig. 18: Monthly Sales Screen

Detail about the above interface:

This will show the monthly sales of items in the form of graph to easily visualize and analyze the result.

7.13 Cashier Login Screen

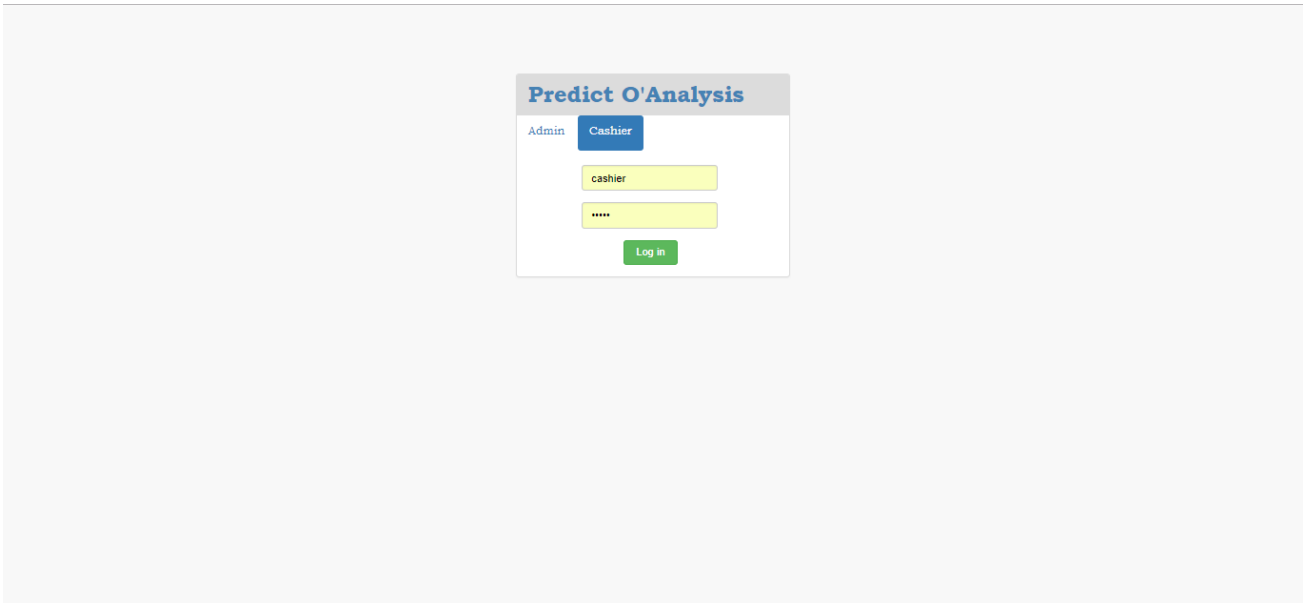


Fig. 19: Cashier Login Screen

Detail about the above interface:

The above shown interface will allow the cahier to gain access to the system by providing an assigned username and password.

7.14 Payment Screen

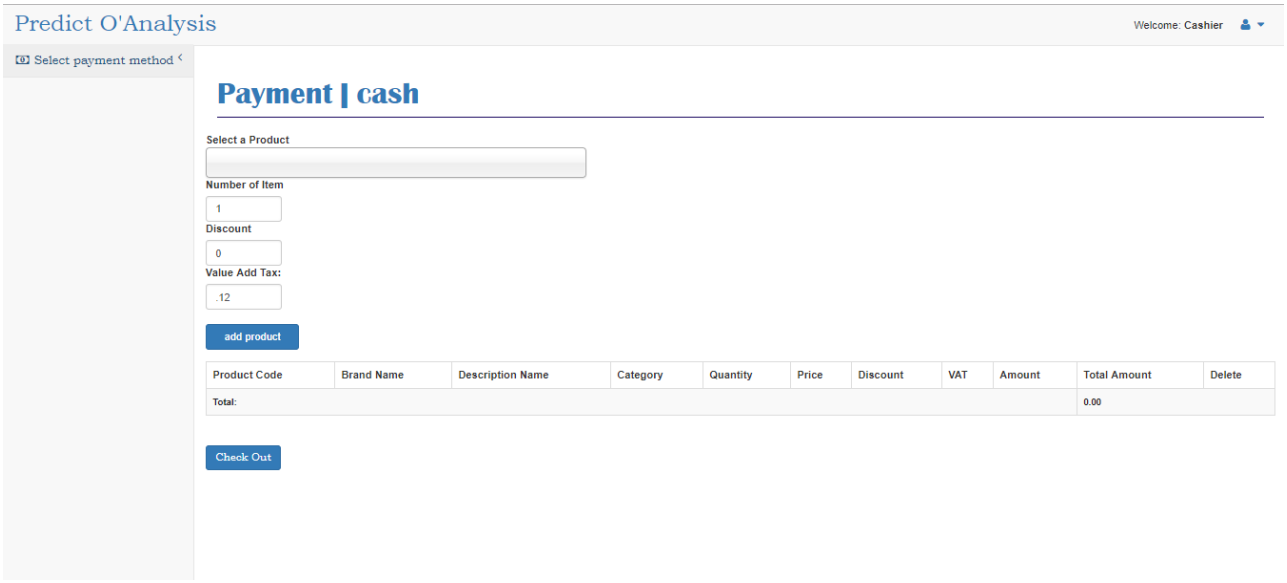


Fig. 20: Payment Screen

Detail about the above interface:

This is the payment screen from where the customer can buy the products.

7.15 Print Receipt Screen

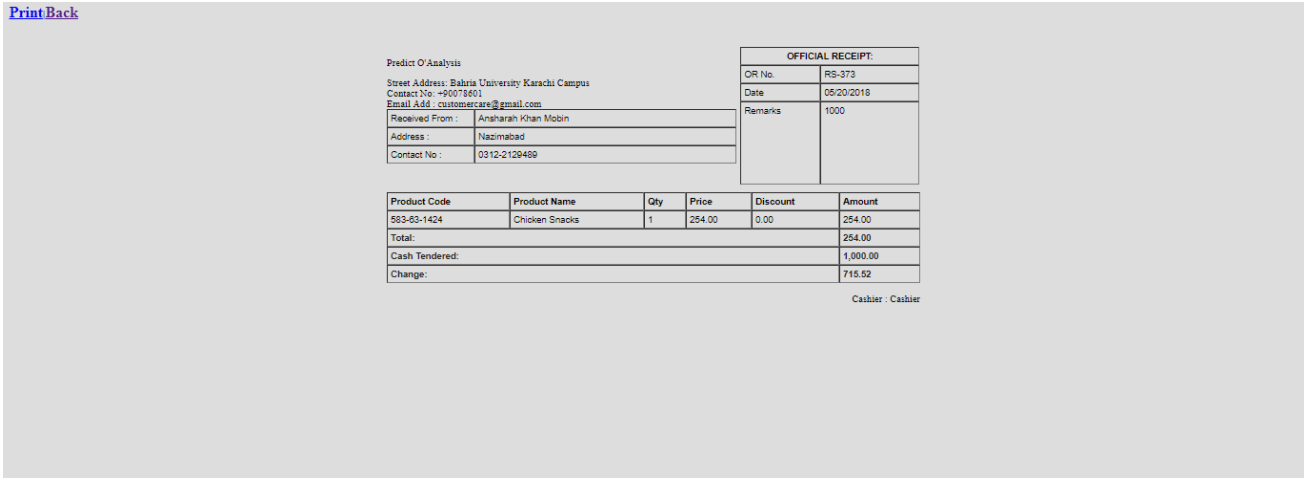


Fig. 21: Print Receipt Screen

Detail about the above interface:

This will print the receipt for the items being sold to customers.

8. Discussion

Our project Predict O'Analysis was initially based on MVC which was later on transferred to core PHP because of the algorithms that we were using were available in PHP and could be easily implemented with our project. The project uses MySQL for database. We used data mining algorithm of time series to visually analyze the sales of each product throughout the month and year. We also used some predicting algorithms like forecasting to predict the sales of product in the future months or years. The project has a dashboard layout, there are two login panels that can be accessed by the admin and other by the cashier. For graphs, we used amchart and morris.js plugins.

Testing such as black box and white box testing was done to validate the project for better performance. Different test cases were designed and executed to check the test.

9. Conclusions

The Predict O'Analysis provide many valuable benefits to the professional industry and in most instances could provide many more benefits than are being utilized.

Some of the benefits are extremely basic while others are much more sophisticated aides to effectively manage the business, customers and direction to capture opportunities for the company.

The most important characteristic of this system contains the reporting system, which is a special page for Admin to record profits and sales during the period in which they want, which is to be identified, either day, week, month and a half years.

The analysis is done by visual representation of the sales record in the form of charts, making it easy for the concerned person to identify the sales according to years or months.

10. Future work

The current proposed solution will help in doing a vast analysis on the sales record using time-series algorithm. The result is visually represented so it will be easy to analyze the sales record over a year or a month.

Further work can be done in the current proposed solution by using SQL Server analysis services which has two algorithms ARTXP and ARIMA integrated in the server. ARIMA model is a way of forecasting the future values for time-series data.

11. Appendices

APPENDIX A

TIME SERIES FORECASTING

```
<?php
   Class TS (ts.class.php)

define('TSDEBUG',0);    //set to 1 to show some debug messages
define('TSLANG',"it");  //set the language: it (italian) or en (english)ù
define('USE_JGRAPH',"YES");  //set to YES if you want to use jgraph libraries
define('JGRAPH_PATH',"../jpgraph-4.2.0/src/"); //define the path to jgraph libraries
define('JGRAPH_IMAGE_PATH','./'); // set the path to the jgraph image repository
include('ts_msg.php.inc');  // a really basic class to handle messages in different languages

if(USE_JGRAPH == "YES") //includes the jgraph libraries
  {
  include_once(JGRAPH_PATH.'jpgraph.php');
  include_once(JGRAPH_PATH.'jpgraph_scatter.php');
  include_once(JGRAPH_PATH.'jpgraph_line.php');
  include_once(JGRAPH_PATH.'jpgraph_bar.php');
  }
class TS    //main class
  {

  var $name = null;  //name of the time series
  var $ts = array(); //the array containing the values of the time series
  var $len; //the length (i.e. number of elements) of the time series
  var $labels = array(); //labels for the values
  var $messages = null;  //message handler


  function TS($name="", $s=null, $l=null)  //constructor
    {
```

```
    $this->name = $name;
    $this->messages = new TS_msg();

    if($s == null)
      {
      $this->ts = null;
      $this->len = 0;
      }
    else
      {
      $this->ts_parseline($s);  //parse the argument s which contains the values of the time series
      }

    if($l == null)
      $this->label = null;
    else
      $this->ts_setlabel($l);

    }

  function ts_parseline($s, $exclude_zeroes = false)
    {
    $ts = str_word_count($s, 1, '0123456789.'); //parse the input string

    //force the cast to float values
    for($i = 0; $i < count($ts); $i++)
      $this->ts[$i] = (float) $ts[$i];

//count the number of values in the time series
//if $exclude_zeroes is true, the 0s are excluded from the count.
//by default, zeroes are included
    ($exclude_zeroes) ? $this->len = $this->ts_count() : $this->len = count($this->ts);
    if(TSDEBUG) $this->ts_print(true);
    }
  function ts_setlabel($label=array())  //set the labels for the values
```

```
  {
  $this->labels = str_word_count($label, 1, '0123456789.-_'); //parse the label string
  (count($this->labels) != $this->len) ? $this->messages->m(TSLANG,"TS_LABEL_VALUE_MISMATCH") : true ;
  }
 function ts_count()
  {
   foreach($this->ts as $t=>$v)
    {
    if($v > 0)
      {
      $this->len++;
      }
    }
  }
 function ts_name()
  {
  echo $this->name;
  }
 function ts_print($with_label=true)
  {
  if($with_label)
    {
    if($this->labels == null)
      {
      $this->messages->m(TSLANG,"TS_LABEL_NOT_DEFINED", false);

      for($i = 0; $i < $this->len; $i++)
        {
        echo $i." ".$this->ts[$i]."<br/>";
        }
      }
    else
      {
      for($i = 0; $i < $this->len; $i++)
```

```
        {
        echo $this->labels[$i]." - ".$this->ts[$i]."<br/>";
        }
       }
     }
     else
     {
     for($i = 0; $i < $this->len; $i++)
        {
        echo $this->ts[$i]."<br/>";
        }
     }
   }
  function ts_mean()
   {
   $m = (float)0.0;

   foreach($this->ts as $t=>$v)
    {
    ($v > 0) ? $m += $v : true;
    }
    $m /= $this->len;
   return (float)$m;
   }
  function ts_weighted_mean($weights=array()) //calculate the weighted mean value of the time series
   {
   $m = (float) 0.0;
   if(count($weights) != $this->len)
    {
    $this->messages->m(TSLANG,"TS_VALUES_WEIGHTS_MISMATCH", true);
    }

   for($i = 0; $i < $this->len; $i++)
    {
```

```
    $m += ($this->ts[$i] * $weights[$i]);
    }
    $m /= $this->len;

   return (float)$m;
  }

 function ts_moving_average($periods=3) //calculate and print the weighted moving average
  {
  $m = (float) 0.0;
  ($periods <= 0) ? $this->messages->m(TSLANG,"TS_WRONG_PERIODS_VALUE", true) : true;

  for($i = $periods-1; $i < $this->len; $i++)
   {
   for($j = $periods-1; $j >= 0 ; $j--)
    {
    $m += $this->ts[$i-$j];
    }
    $m /= $periods;
    echo "<br>$m";
    $m = 0.0;
   }
  }
 function ts_moving_weighted_average($periods=3, $weights=array()) //calculate and print the weighted moving average
  {
  if(count($weights) != $periods)
   {
   $this->messages->m(TSLANG,"TS_VALUES_WEIGHTS_MISMATCH", true);
   }


  $m = (float) 0.0;
```

```
($periods <= 0) ? $this->messages->m(TSLANG,"TS_WRONG_PERIODS_VALUE", true): true;

for($i = $periods-1; $i < $this->len; $i++)
  {
  for($j = $periods-1; $j >= 0 ; $j--)
    {
    $m += ($this->ts[$i-$j]*$weights[$periods-$j-1]);
    }
    $m /= $periods;
    echo "<br>$m";
    $m = 0.0;
  }
 }

 function ts_stdev()  //calculate the standard deviation
  {
  return sqrt($this->ts_var());
  }
the variance of the time series
/*!

 function ts_var($type="pop")  //calculate the variance
 //pop for the population variance
  {
  $mean = $this->ts_mean();
  $m = 0.0;
  for($i = 0; $i < $this->len; $i++)
    {
    $m += ($this->ts[$i]-$mean)*($this->ts[$i]-$mean);
    }
    if($type === "pop") return ($m /= (($this->len)-1));
    else return ($m /= (($this->len)));
  }

 function ts_acf($lags=10)
```

```
  //according to http://www.itl.nist.gov/div898/handbook/eda/section3/autocopl.htm
     {
    $var = $this->ts_var("sample");
    $mean = $this->ts_mean();
    $n = $this->len;
    $ch = array();

     for($i = 0; $i < $lags; $i++)
     {
     $ch[$i] = (float) 0.0;

     for($j = 0; $j < ($n - $i); $j++)
       {
       $ch[$i] += ($this->ts[$j] - $mean)*($this->ts[$j+$i] - $mean);
       }
       $ch[$i] /= $n;
       $ch[$i] /= $var;
     }
    return $ch;
    }
*/
  function ts_acf_plot($lags=10, $x, $y, $title)  //plot the ACF
    {
    $v = $this->ts_acf($lags);

    $g = $this->ts_graph($x, $y, $title);
    $p = $this->ts_data($v, "BAR");
    $g->add($p);
    $g->Stroke(JGRAPH_IMAGE_PATH."data.png");
      echo "<br/><img src=".JGRAPH_IMAGE_PATH."data.png>";

    }

  function ts_plot($x, $y, $title)
    {
```

```
    $g = $this->ts_graph($x, $y, $title);
    $p = $this->ts_data($this->ts, "LINE");
    $g->add($p);
    $g->Stroke(JGRAPH_IMAGE_PATH."ts.png");
      echo "<br/><img src=".JGRAPH_IMAGE_PATH."ts.png>";
    }
  function ts_simple_linear_regression($descriptor)  //calculate the linear regression interpolation
    {

    ($descriptor->len != $this->len) ? $this->messages->m(TSLANG,"TS_VALUES_DESCRIPTORS_MISMATCH", true) : true;

    $Sxx = 0.0;
    $Syy = 0.0;
    $Sxy = 0.0;
    $xmean = $descriptor->ts_mean();
    $ymean = $this->ts_mean();

    for($i = 0; $i < $this->len; $i++)
      {
      $Sxx += ($xmean - $descriptor->ts[$i])*($xmean - $descriptor->ts[$i]);
      $Syy += ($ymean - $this->ts[$i])*($ymean - $this->ts[$i]);
      $Sxy += ($xmean - $descriptor->ts[$i])*($ymean - $this->ts[$i]);
      }
    $Sxx /= $this->len;
    $Syy /= $this->len;
    $Sxy /= $this->len;
    $alfa = $Sxy/$Sxx;
    $beta = $ymean - $alfa*$xmean;

    return array('alfa'=>$alfa, 'beta' => $beta);
    //TO DO: calculate other indicators for the regression
    }

//------------------------------------------------------------------------
```

```
  function slr($descriptor)  //facility for simple regression
    {
    return $this->ts_simple_linear_regression($descriptor);
    }

  \param $periods Number of lag periods
  \return Lagged time series
*/
  function ts_lag($periods=1)
    {
    $lagged = array();

    for($i = 0; $i < $this->len-$periods; $i++)
      $lagged[$i] = (float)$this->ts[$i+$periods];

    //for($i = $this->len-$periods; $i < $this->len; $i++)
    //  $lagged[$i] = (float)0.0;

    return $lagged;
    }
  \param $periods Number of lag periods
  \todo  Modify the graphic routines
*/
  function ts_lag_plot($periods=1)   //plot the lag plot (jpgraph library required)
    {

    $ts_tmp = array();
    $lagged = $this->ts_lag($periods);
    $n = count($lagged);

    for($i = 0; $i < $n; $i++)
      $ts_tmp[$i] = $this->ts[$i];

    if(TSDEBUG)
```

```
    {
    print_r($lagged);
    print_r($ts_tmp);
    }
  //plot the lag diagram
  $graph = new Graph(300,300,"auto");
  $graph->SetScale("linlin");

  $graph->img->SetMargin(40,40,40,40);
  $graph->SetShadow();

  $graph->title->Set("A simple scatter plot");
  $graph->title->SetFont(FF_FONT1,FS_BOLD);

  $sp1 = new ScatterPlot($lagged, $ts_tmp);

  $graph->Add($sp1);
  $graph->Stroke("d:\www\TS\scatter.png");
  echo "<br/><img src=scatter.png>";

  }

 \param $alfa Smoothing parameter
 \param $Szero Initializing value for S
 \param $init_periods  Number of periods to be used to initialize S
 \note The forecast for the period t+1 is calculated as\n
 Ft+1 = St \n
 St = alfa * At + (1-alfa)*St-1
*/
 function ts_smoothing_simple($alfa=0.5, $Szero = null, $init_periods = 0)
 //returns an array of the smoothed exponential means
  {
  if($Szero == null && $init_periods == 0) $this->messages-
>m(TSLANG,"TS_WRONG_SMOOTHING_INIT", true);
```

```
   if($Szero == null && $init_periods != 0) //initialize with the average of the first $init_periods values
     {
     $Szero = 0.0;
     for($i = 0; $i < $init_periods; $i++)
       $Szero += $this->ts[$i];

       $Szero /= $init_periods;
     }
    if($Szero != null) $init_periods = 0;  //if $Szero is assigned, then forget about $init_periods


    $S = array();  //array of the exponential means
    $S[0] = $Szero;

    for($i = $init_periods+1; $i < $this->len; $i++)
     {
     $S[$i] = $alfa*$this->ts[$i]+(1-$alfa)*$S[$i-1];
     }

   return $S;
   }
  Ft+1 = St +Tt\n
  St = alfa * At + (1-alfa)*(St-1 * Tt-1)\n
  Tt = beta * (St - St-1) + (1-beta)*Tt-1

*/

  function ts_smoothing_trend($alfa=0.5, $beta=0.5, $Szero = null, $Tzero = null, $init_periods = 0)
  //returns an array of the smoothed exponential means
   {
   if($Szero == null && $init_periods == 0 && $Tzero == null) $this->messages->m(TSLANG,"TS_WRONG_SMOOTHING_INIT", true);
```

```
   if($Szero == null && $init_periods != 0) //initialize with the average of the first $init_periods values
     {
     $Szero = 0.0;
     for($i = 0; $i < $init_periods; $i++)
       $Szero += $this->ts[$i];

       $Szero /= $init_periods;
     }

     if($Szero != null) $init_periods = 0;  //if $Szero is assigned, then forget about $init_periods

     $S = array();  //array of the exponential means
     $S[0] = $Szero;
     $T = array();   //array of the exponential trend means
     $T[0] = $Tzero;

   for($i = $init_periods+1; $i < $this->len; $i++)
     {
     $S[$i] = $alfa*$this->ts[$i]+(1-$alfa)*($S[$i-1]+$T[$i-1]);
     $T[$i] = $beta*($this->$S[$i] - $this->$S[$i-1])+(1-$beta)*$T[$i-1];
     }

   return array($S,$T);
   }
  function ts_graph($x = 300, $y = 200, $title="Graph")  //return a jgraph object representing a graph
   {
   if(USE_JGRAPH == "NO") return;  //return if graphic capabilities are not used

     $graph = new Graph($x, $y, "auto"); //all these options should be set on run time (TO BE DONE)
     $graph->title->Set($title);
     $graph->img->SetMargin(40,40,40,40);
     $graph->img->SetAntiAliasing();
     $graph->SetScale("textlin");  //this is suitable for classic lineplot
```

```
    $graph->SetShadow();
    $graph->title->SetFont(FF_FONT1,FS_BOLD);
    return $graph;
  }

 function ts_data($data, $type)    // return a jgraph object representing the data to be plotted
  {
    switch($type)
      {
      case "BAR":
        $p = new BarPlot($data);
        $p->SetWidth(0.1);
        return $p;
        break;
      case "LINE":
        $p = new LinePlot($data);  //this line should be set on run time (TO BE DONE)
        $p->mark->SetType(MARK_FILLEDCIRCLE);//all these options should be set on run time (TO BE DONE)
        $p->mark->SetFillColor("red");
        $p->mark->SetWidth(4);
        $p->SetColor("blue");
        $p->SetCenter();
        return $p;
        break;
      default:
        echo "Uknown data type";
        break;
      }
  }


}


?>
```

APPENDIX B

CODES

addproduct.php

```
<div class="panel-body">
  <div class="modal fade" id="add" tabindex="-1" role="dialog" aria-labelledby="myModalLabel" aria-hidden="true">
    <div class="modal-dialog">
      <div class="modal-content">
        <div class="modal-header">
          <button type="button" class="close" data-dismiss="modal" aria-hidden="true">&times;</button>
          <h4 class="modal-title" id="myModalLabel">Add Product</h4>
        </div>
        <div class="modal-body">
          <form action="saveproduct.php" method="post" class = "form-group" >
            <div id="ac">
              <span>Category: </span>
              <select name="categ" class = "form-control" >
              <option>Select Category</option>
              <option>Beverages</option>
              <option>Bread/Bakery</option>
              <option>Dairy</option>
              <option>Frozen Foods</option>
             <option>Meat</option>
              <option>Noodles</option>
              <option>Shampoo</option>
              <option>Snacks</option>
              <option>Soaps & Detergents</option>

              </select>
```

```
<span>Product Code : </span><input type="text" name="code" value = "<?php echo $pcode ?>" class = "form-control" />
<span>Brand Name : </span><input type="text" name="bname" class = "form-control" />
<span>Description Name : </span><input type="text" name="dname" class = "form-control" />
<span>Product Unit : </span>
<select name="unit" class = "form-control"/ >
<option>Select Product Unit</option>
<option>Per Pieces</option>
<option>Per Box</option>
<option>Per Pack</option>
</select>
<span>Cost Price: </span><input type="text" name="cost" class = "form-control" />
<span>Sell Price : </span><input type="text" name="price"  class = "form-control" />
<span>Supplier : </span>
<select name="supplier" class = "form-control">
   <?php
   include('connect.php');
   $result = $db->prepare("SELECT * FROM supliers");
   $result->bindParam(':userid', $res);
   $result->execute();
   for($i=0; $row = $result->fetch(); $i++){
      ?>
      <option><?php echo $row['suplier_name']; ?></option>
      <?php
   }
   ?>
</select>
<span>Quantity : </span><input type="text" name="qty" class = "form-control" />
<span>Date Delivered: </span><input type="date" name="date_del" class = "form-control" />
```

```
                    <span>Expiration Date: </span><input type="date" name="ex_date" class = "form-
control" />
                    <span> </span><input class="btn btn-primary btn-block" type="submit"
class = "form-control" value="Save" />
                  </div>
                </div>
                <div class="modal-footer">
                </div>
              </div>

          </div>

        </div>
```

addcustomer.php

```
<link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

<link href="../vendor/datatables-plugins/dataTables.bootstrap.css" rel="stylesheet">

<link href="../vendor/datatables-responsive/dataTables.responsive.css" rel="stylesheet">

<link href="../dist/css/sb-admin-2.css" rel="stylesheet">

<link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

<form action="savecustomer.php" method="post" class = "form-group">
<div id="ac">
<span>Name : </span><input type="text" name="name" class = "form-control" />
<span>Address : </span><input type="text" name="address" class = "form-control" />
<span>Contact : </span><input type="text" name="contact" class = "form-control" />
<span>Membership No. : </span><input type="text" name="memno" class = "form-control" />
<span> </span><input class="btn btn-primary btn-block" type="submit" value="save" class =
"form-control" />
</div>
</form>
```

addsupplier.php

```
<link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

<link href="../dist/css/sb-admin-2.css" rel="stylesheet">
<link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

<form action="savesupplier.php" method="post" class = "form-group">
<div id="ac">
<span>Supplier : </span><input type="text" name="name" class = "form-control" />
<span>Contact Person : </span><input type="text" name="cperson" class = "form-control" />
<span>Address : </span><input type="text" name="address" class = "form-control" />
<span>Contact : </span><input type="text" name="contact" class = "form-control" />
<span> </span><input class="btn btn-primary btn-block"  type="submit" value="save" class = "form-control" />
</div>
</form>
```

chart.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">

<head>

    <title>Predict O'Analysis</title>

    <link rel="shortcut icon" href="logo.png">
        <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
    <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
    <link href="../dist/css/sb-admin-2.css" rel="stylesheet">
    <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">
    <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
    <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
    <![endif]-->
    <style>
        #chartdiv {
            width  : 100%;
            height : 500px;
        }
    </style>

    <link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
    <script src="lib/jquery.js" type="text/javascript"></script>
    <script src="src/facebox.js" type="text/javascript"></script>
    <script type="text/javascript">
        jQuery(document).ready(function($) {
            $('a[rel*=facebox]').facebox({
```

```
            loadingImage : 'src/loading.gif',
            closeImage   : 'src/closelabel.png'
          })
      })
  </script>

  <script language="javascript">
      function Clickheretoprint()
      {
          var disp_setting="toolbar=yes,location=no,directories=yes,menubar=yes,";
          disp_setting+="scrollbars=yes,width=800, height=400, left=100, top=25";
          var content_vlue = document.getElementById("content").innerHTML;

          var docprint=window.open("","",disp_setting);
          docprint.document.open();
          docprint.document.write('</head><body onLoad="self.print()" style="width: 1000px;
height:400; font-size: 20px; font-family: arial;">');
          docprint.document.write(content_vlue);
          docprint.document.close();
          docprint.focus();
      }
  </script>
</head>

<body>

<?php include('navfixed.php');?>

<div id="page-wrapper">
  <div class="container-fluid">
      <div class="row">
          <div class="col-lg-12">
              <h1 class="page-header">Sales Charts</h1>
          </div>
      </div>
```

```
<div class="content" id="content">
  <p> Sales Charts According to Product Category</p>
  <div class="row">
    <?php
    include('connect.php');
    $sql = "SELECT *, category as cat, count(category) as qcount FROM sales_order GROUP BY category";
    $query = $db->prepare($sql);
    $query->execute();
    $fetch = $query->fetchAll();
    foreach ($fetch as $key => $value) {
      $data[] = array('title'=>$value['cat'], 'value'=>$value['qcount']);
    }
    $d = json_encode($data);
    ?>

    <div>
      <table width="100%" class="table table-striped table-bordered table-hover" id="dataTables-example">

        <thead>
        <tr>

          <th> Invoice Number </th>
          <th> Brand Name </th>
          <th> Description Name</th>
          <th> Category</th>
          <th> Transaction Date </th>

        </tr>
        </thead>
        <tbody>

        <?php
```

```
                include('connect.php');
                $result = $db->prepare("SELECT * FROM sales_order");
                $result->execute();
                for($i=0; $row = $result->fetch(); $i++){
                  ?>
                  <tr class="record">
                    <td><?php echo $row['invoice']; ?></td>
                    <td><?php echo $row['name']; ?></td>
                    <td><?php echo $row['dname']; ?></td>
                    <td><?php echo $row['category']; ?></td>
                    <td><?php echo $row['date']; ?></td>
                  </tr>
                  <?php
                }
                ?>

                </tbody>
              </table>

            </div>
          </div>

  <script src="https://www.amcharts.com/lib/3/amcharts.js"></script>
  <script src="https://www.amcharts.com/lib/3/serial.js"></script>
  <script src="https://www.amcharts.com/lib/3/plugins/export/export.min.js"></script>
  <link rel="stylesheet" href="https://www.amcharts.com/lib/3/plugins/export/export.css"
type="text/css" media="all" />
  <script src="https://www.amcharts.com/lib/3/themes/light.js"></script>

  <script>
    var chartData = generateChartData();
    var chart = AmCharts.makeChart("chartdiv", {
      "type": "serial",
      "theme": "light",
      "marginRight": 80,
```

```
"autoMarginOffset": 20,
"marginTop": 7,
"dataProvider": chartData,
"valueAxes": [{
    "axisAlpha": 0.2,
    "dashLength": 1,
    "position": "left"
}],
"mouseWheelZoomEnabled": true,
"graphs": [{
    "id": "g1",
    "balloonText": "[[value]]",
    "bullet": "round",
    "bulletBorderAlpha": 1,
    "bulletColor": "#FFFFFF",
    "hideBulletsCount": 50,
    "title": "red line",
    "valueField": "visits",
    "useLineColorForBulletBorder": true,
    "balloon":{
        "drop":true
    }
}],
"chartScrollbar": {
    "autoGridCount": true,
    "graph": "g1",
    "scrollbarHeight": 40
},
"chartCursor": {
    "limitToGraph":"g1"
},
"categoryField": "date",
"categoryAxis": {
    "parseDates": true,
    "axisColor": "#DADADA",
```

```
            "dashLength": 1,
            "minorGridEnabled": true
        },
        "export": {
            "enabled": true
        }
    });

    chart.addListener("rendered", zoomChart);
    zoomChart();
    function zoomChart() {
        chart.zoomToIndexes(chartData.length - 40, chartData.length - 1);
    }

    function generateChartData() {
        var chartData = [];
        var firstDate = new Date();
        firstDate.setDate(firstDate.getDate() - 5);
        var visits = 1200;
        for (var i = 0; i < 1000; i++) {
            var newDate = new Date(firstDate);
            newDate.setDate(newDate.getDate() + i);

            visits += Math.round((Math.random()<0.5?1:-1)*Math.random()*10);

            chartData.push({
                date: newDate,
                visits: visits
            });
        }
        return chartData;
    }
</script>
<div id="chartdiv"></div>
```

```
    <a href="javascript:Clickheretoprint()" style="font-size:15px"; class="btn btn-primary"><i class="fa fa-print"></i>Print</a>
   </div>

</div>
<script src="../vendor/jquery/jquery.min.js"></script>


</body>

</html>
```

home.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">
<head>

<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<meta name="description" content="">
<meta name="author" content="">

<title>Predict O'Analysis</title>

<link rel="shortcut icon" href="logo.png" >

<link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
<link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
<link href="../dist/css/sb-admin-2.css" rel="stylesheet">
<link href="../vendor/morrisjs/morris.css" rel="stylesheet">
<link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

<link href="../css/bootstrap-datepicker.min.css" rel="stylesheet">

<link href="../js/datepicker.js" rel="stylesheet">

<link href="../js/bootstrap-datepicker.min.js" rel="stylesheet">

<link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
<script src="lib/jquery.js" type="text/javascript"></script>
```

```
<script src="src/facebox.js" type="text/javascript"></script>
<script type="text/javascript">
jQuery(document).ready(function($) {
$('a[rel*=facebox]').facebox({
loadingImage : 'src/loading.gif',
closeImage   : 'src/closelabel.png'
})
})
</script>

</head>

<body>

<div id="wrapper">

<?php include('navfixed.php');?>



<div id="page-wrapper">
<div class="row">
<div class="col-lg-12">
<h3 class="page-header">Welcome:<strong> <?php echo $session_admin_name;?></strong></h3>
</div>

</div>

<div id="myCarousel" class="carousel slide">

<ol class="carousel-indicators">
<li data-target="#myCarousel" data-slide-to="0" class="active"></li>
<li data-target="#myCarousel" data-slide-to="1"></li>
<li data-target="#myCarousel" data-slide-to="2"></li>
<li data-target="#myCarousel" data-slide-to="3"></li>
```

```
</ol>

<center>
<div class="carousel-inner" role="listbox" style=" width:100%; height: 270px !important;">
<div class="item active">
<img src="pics/pasta.jpg"width="45%" height="10px">
</div>

<div class="item">
<img src="pics/dove.jpg"width="45%" height="10px">
</div>
<div class="item">
<img src="pics/shampoo.jpg"width="45%" height="10px">
</div>
<div class="item">
<img src="pics/fries.jpg" width="45%" height="10px">
</div>
</div>
</center>


<a class="left carousel-control" href="#myCarousel" data-slide="prev" >
<span class="icon-prev"></span>
</a>
<a class="right carousel-control" href="#myCarousel" data-slide="next">
<span class="icon-next"></span>
</a>
</div>


<div id="orayt">
<a class="list-group-item">
<?php
function formatMoney($number, $fractional=false) {
if ($fractional) {
```

```
$number = sprintf('%.2f', $number);
}
while (true) {
$replaced = preg_replace('/(-?\d+)(\d\d\d)/', '$1,$2', $number);
if ($replaced != $number) {
$number = $replaced;
} else {
break;
}}return $number;
}
?>
<?php
include('connect.php');
$today = date('m/d/Y');
$sql = "SELECT sum(amount) FROM sales WHERE date = ?";
$query = $db->prepare($sql);
$query->execute(array($today));
$fetch = $query->fetchAll();

foreach ($fetch as $key => $value) {
$data = $value['sum(amount)'];
}
$json = json_encode($data);
?>
<?php echo "<font style = 'color:black;'>Total Sales For Today:  </font>";
echo  $today;  ?>
</a>
<a class="list-group-item" href ="view_productqty.php">
Re-Order<span class="badge">
<?php
include('connect.php');
$result = $db->prepare("SELECT * FROM products where qty_left < 50 ORDER BY product_id
DESC");
$result->execute();
$rowcount = $result->rowcount();
```

```
?>
<?php echo $rowcount;?>
</span>
</a>
<a class="list-group-item" href ="view_customer.php">
Credit <span class="badge">
<?php
include('connect.php');
$today = date('Y-m-d');
$sql = "SELECT * FROM sales WHERE due_date = ?";
$query = $db->prepare($sql);
$query->execute(array($today));
$fetch = $query->fetchAll();
$rowcount = $query->rowcount();
?>
[<?php echo $rowcount;?>]  <?php echo "$today" ?>
</span>
</a>
<a class="list-group-item" href ="view_exproduct.php">
Product Expiration  <span class="badge">
<?php
include('connect.php');
$today = date('Y-m-d');
$sql = "SELECT * FROM products WHERE products.expiration_date >= DATE(now())
AND
products.expiration_date <= DATE_ADD(DATE(now()), INTERVAL 1 MONTH)";
$query = $db->prepare($sql);
$query->execute(array($today));
$fetch = $query->fetchAll();
$rowcount = $query->rowcount();
?>
[<?php echo $rowcount;?>]  <?php echo "$today" ?>
</span>
</a>
<!--<a class="list-group-item"  href ="view_overdue.php">
```

```
Overdue <span class="badge">
<?php
include('connect.php');
$today = date('Y-m-d');
$sql = "SELECT due_date FROM sales WHERE DATE(due_date) = DATE( DATE_SUB( NOW() ,
INTERVAL 1 DAY ) )";
$query = $db->prepare($sql);
$query->execute(array($today));
$fetch = $query->fetchAll();
$rowcount = $query->rowcount();
?>
[<?php echo $rowcount;?>]  <?php echo "$today" ?>
</span>
</a>-->
</div>
</div>
</div>
</div>
<script src="../dist/js/sb-admin-2.js"></script>
<script>
$('.carousel').carousel({
        interval: 3000 //changes the speed
    })
</script>
</body>

</html>
```

index.php

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<meta name="description" content="">
<meta name="author" content="">

<title>Predict O'Analysis</title>


<link rel="shortcut icon" href="logo.png">
<link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

<link href="../dist/css/sb-admin-2.css" rel="stylesheet">

<link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">


<body>

<script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
<script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
<![endif]-->



</head>
```

```
<body>
<?php
function createRandomPassword() {
$chars = "003232303232023232023456789";
srand((double)microtime()*1000000);
$i = 0;
$pass = '' ;
while ($i <= 7) {

$num = rand() % 33;

$tmp = substr($chars, $num, 1);

$pass = $pass . $tmp;

$i++;

}
return $pass;
}
$finalcode='RS-'.createRandomPassword();
?>

<div class="container">
<div class="row">
<div class="col-md-4 col-md-offset-4">
<div class="login-panel panel panel-default">
<div class="panel-heading">
<h3 class="panel-title"><b>Predict O'Analysis </b></h3>
</div>
<ul class="nav nav-pills">
<li class="active"><a data-toggle="pill" href="#home">Admin</a></li>
<li><a data-toggle="pill" href="#menu2">Cashier</a></li>
</ul>
<div class="tab-content">
```

```
<div id="home" class="tab-pane fade in active">
<br />
<form method="post" name="admin_form">
<div class="form-group">
<input type="text" class="form-control" style="margin-left:85px;width: 50%;" name="username" placeholder="Username">
</div>
<div class="form-group">
<input type="password" class="form-control" style="margin-left:85px;width: 50%;" name="pass" placeholder="Password">
</div>
<div class="form-group">
<button class="btn btn-block btn-success" id = "btn-login" name = "btn-login" style="margin-left:140px;width: 20%;">Log in</button>
</div>
<div class="form-group" id="alert-msg">
</div>

</form>
</div>
<div id="menu2" class="tab-pane fade">
<br />
<form method="post" name="cashier_form">
<div class="form-group">
<input type="text" class="form-control" style="margin-left:85px;width: 50%;"name="cashier_username" placeholder="Username">
</div>
<div class="form-group">
<input type="password" class="form-control" style="margin-left:85px;width: 50%;"name="cashier_pass" placeholder="Password">
</div>
<div class="form-group">
<button class="btn btn-block btn-success" id = "btn" name = "btn" style="margin-left:140px;width: 20%;">Log in</button>
</div>
```

```
<div class="form-group" id="alert-msg1">
</div>
</form>
</div>
</div>
</div>
</div>
</div>
</div>

<script src="../vendor/jquery/jquery.min.js"></script>

<script src="../vendor/bootstrap/js/bootstrap.min.js"></script>

<script src="../vendor/metisMenu/metisMenu.min.js"></script>
<script src="../dist/js/sb-admin-2.js"></script>

<script type="text/javascript">
jQuery(function(){
$('form[name="admin_form"]').on('submit', function(donard){
donard.preventDefault();

var a = $(this).find('input[name="username"]').val();
var b = $(this).find('input[name="pass"]').val();

if (a === '' && b ===''){
$('#alert-msg').html('<div class="alert alert-danger">All fields are required!</div>');
}else{
$.ajax({
type: 'POST',
url: 'new_login.php',
data: {
username: a,
password: b
},
```

```
beforeSend:  function(){
$('#alert-msg').html('');
}
})
.done(function(donard){
if (donard == 0){
$('#alert-msg').html('<div class="alert alert-danger">Incorrect username or password!</div>');
}else{
$("#btn-login").html('<img src="loading.gif" />   Signing In ...');
setTimeout(' window.location.href = "home.php"; ',2000);
}
});
}
});

$('form[name="cashier_form"]').on('submit', function(donard){
donard.preventDefault();

var a = $(this).find('input[name="cashier_username"]').val();
var b = $(this).find('input[name="cashier_pass"]').val();

if (a === '' && b === ''){
$('#alert-msg1').html('<div class="alert alert-danger">All fields are required!</div>');
}else{
$.ajax({
type: 'POST',
url: 'cashier/new_login.php',
data: {
username: a,
password: b
},
beforeSend:  function(){
$('#alert-msg1').html('');
}
})
```

```
.done(function(donard){
if (donard == 0){
$('#alert-msg1').html('<div class="alert alert-danger">Incorrect username or password!</div>');
}else{
$("#btn").html('<img src="loading.gif" />   Signing In ...');
setTimeout(' window.location.href = "cashier/sales.php?id=cash&invoice=<?php echo $finalcode
?>"; ',2000);
}
});
}
});
});
</script>

</body>

</html>
```

month_chart.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">

<head>

    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta name="description" content="">
    <meta name="author" content="">

    <title>Predict O'Analysis</title>

     <link rel="shortcut icon" href="logo.png">
    <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

    <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

    <link href="../dist/css/sb-admin-2.css" rel="stylesheet">


    <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

        <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
        <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
        <![endif]-->

        <style>
            #chartdiv {
```

```
            width      : 100%;
            height     : 500px;
            font-size  : 11px;
          }
      </style>


      <link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
      <script src="lib/jquery.js" type="text/javascript"></script>
      <script src="src/facebox.js" type="text/javascript"></script>
      <script type="text/javascript">
        jQuery(document).ready(function($) {
          $('a[rel*=facebox]').facebox({
            loadingImage : 'src/loading.gif',
            closeImage   : 'src/closelabel.png'
          })
        })
    </script>


    <script language="javascript">
      function Clickheretoprint()
      {
        var disp_setting="toolbar=yes,location=no,directories=yes,menubar=yes,";
        disp_setting+="scrollbars=yes,width=800, height=400, left=100, top=25";
        var content_vlue = document.getElementById("content").innerHTML;

        var docprint=window.open("","",disp_setting);
        docprint.document.open();
        docprint.document.write('</head><body onLoad="self.print()" style="width: 1000px;
height:400; font-size: 20px; font-family: arial;">');
        docprint.document.write(content_vlue);
        docprint.document.close();
        docprint.focus();
      }
```

```
  </script>

</head>

<body>


   <?php include('navfixed.php');?>

   <!-- Page Content -->
   <div id="page-wrapper">
      <div class="container-fluid">
         <div class="row">
            <div class="col-lg-12">
               <h1 class="page-header">Monthly Sales</h1>
            </div>


            <div class="content" id="content">
               <p> Monthly Sales Chart</p>
               <div class="row">
                  <?php
                  include('connect.php');
                  $sql = "SELECT *, month as mon, SUM(amount) as qcount FROM sales GROUP
BY month";
                  $query = $db->prepare($sql);
                  $query->execute();
                  $fetch = $query->fetchAll();
                  foreach ($fetch as $key => $value) {
                     $data[] = array('title'=>$value['mon'], 'value'=>$value['qcount']);
                  }
                  $d = json_encode($data);
                  ?>

                  <div id="chartdiv"></div>
```

```
                </div>
              </div>
            </div>
            <a href="javascript:Clickheretoprint()" style="font-size:15px"; class="btn btn-primary"><i class="fa fa-print"></i>Print</a>
            <!-- /.row -->
        </div>
        <!-- /.container-fluid -->
    </div>



    <script src="plugins/amcharts/amcharts.js"></script>
    <script src="plugins/amcharts/serial.js"></script>
    <script src="plugins/export/export.min.js"></script>
    <link rel="stylesheet" href="plugins/export/export.css" type="text/css" media="all" />
    <script src="plugins/amcharts/themes/light.js"></script>

    <script>

        var raw = '<?php echo $d; ?>';
        var data = JSON.parse(raw);
        var chart = AmCharts.makeChart( "chartdiv", {
          "type": "serial",
          "theme": "light",
          "dataProvider": data,
          "valueAxes": [ {
            "gridColor": "#FFFFFF",
            "gridAlpha": 0.2,
            "dashLength": 0
        } ],
        "gridAboveGraphs": true,
        "startDuration": 1,
        "graphs": [ {
            "balloonText": "[[category]]: <b>Total Sales [[value]]</b>",
```

```
            "fillAlphas": 0.8,
            "lineAlpha": 0.2,
            "type": "column",
            "valueField": "value"
        } ],
        "chartCursor": {
            "categoryBalloonEnabled": false,
            "cursorAlpha": 0,
            "zoomable": false
        },
        "categoryField": "title",
        "categoryAxis": {
            "gridPosition": "start",
            "gridAlpha": 0,
            "tickPosition": "start",
            "tickLength": 20
        },
        "export": {
            "enabled": true
        }

    } );
</script>
<script src="../vendor/jquery/jquery.min.js"></script>
<script src="../vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="../vendor/metisMenu/metisMenu.min.js"></script>
<script src="../dist/js/sb-admin-2.js"></script>

</body>

</html>
```

sales.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">

<head>

        <meta charset="utf-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <meta name="description" content="">
        <meta name="author" content="">

        <title>Predict O'Analysis</title>

 <link rel="shortcut icon" href="logo.png">
  <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
 <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
 <link href="../dist/css/sb-admin-2.css" rel="stylesheet">

 <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">
     <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
     <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
     <![endif]-->
     <link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
     <script src="lib/jquery.js" type="text/javascript"></script>
     <script src="src/facebox.js" type="text/javascript"></script>
     <script type="text/javascript">
       jQuery(document).ready(function($) {
             $('a[rel*=facebox]').facebox({
                   loadingImage : 'src/loading.gif',
```

```
                    closeImage   : 'src/closelabel.png'
                })
            })
        </script>
    </head>
    <body>
     <?php include('navfixed.php');?>

     <div id="page-wrapper">
      <div class="row">
       <div class="col-lg-12">
        <h1 class="page-header">Payment</h1>
      </div>

      <div id="maintable"><div style="margin-top: -19px; margin-bottom: 21px;">
      </div>
      <form action="incoming.php" method="post" class = "form-group" >
       <input type="hidden" name="pt" class = "form-control" value="<?php echo $_GET['id']; ?>"
/>
       <input type="hidden" name="invoice" class = "form-control" value="<?php echo
$_GET['invoice']; ?>" />
       <label>Select a Product</label><br />
       <select  name="product"  style="width:500px;" class="chzn-select">
        <option></option>
        <?php
        include('connect.php');
        $result = $db->prepare("SELECT * FROM products");
        $result->bindParam(':userid', $res);
        $result->execute();
        for($i=0; $row = $result->fetch(); $i++){
        ?>
        <option value="<?php echo $row['product_code'];?>"
          <?php
          if($row['qty_left'] == 0)
          {
```

```
            echo'disabled';
           }
           ?>
           >
           <?php echo $row['product_code']; ?>
           - <?php echo $row['product_name']; ?>
           - <?php echo $row['qty_left']; ?>

          </option>
          <?php
         }
         ?>
       </select>
       <br />
       <label>Number of Item</label>
       <input type="number" name="qty" value="1" min = "1" class = "form-control" autocomplete="off" style="width: 100px; padding-top: 6px; padding-bottom: 6px; margin-right: 4px;" />
       <label>Discount</label>
       <input type="text" name="discount" value="0" class = "form-control"  autocomplete="off" style="width: 100px; padding-top: 6px; padding-bottom: 6px; margin-right: 4px;" />
       <br>
       <input type="submit" class="btn btn-primary" value="add product" class = "form-control" style="width: 123px;" />
     </form>
     <table width="100%" class="table table-striped table-bordered table-hover" id="dataTables-example">
       <thead>
        <tr>
         <th> Product Code </th>
         <th> Product Name </th>
         <th> Category </th>
         <th> Quantity </th>
         <th> Price </th>
         <th> Discount </th>
```

```
    <th> Total Amount </th>
    <th> Delete </th>
  </tr>
</thead>
<tbody>
 <?php
 $id=$_GET['invoice'];
 include('connect.php');
 $result = $db->prepare("SELECT * FROM sales_order WHERE invoice= :userid");
 $result->bindParam(':userid', $id);
 $result->execute();
 for($i=0; $row = $result->fetch(); $i++){
 ?>
 <tr class="record">
  <td><?php echo $row['product']; ?></td>
  <td><?php echo $row['name']; ?></td>
  <td><?php echo $row['category']; ?></td>
  <td><?php echo $row['qty']; ?></td>
  <td>
   <?php
   $ppp=$row['price'];
   echo formatMoney($ppp, true);
   ?>
  </td>
  <td>
   <?php
   $ddd=$row['discount'];
   echo formatMoney($ddd, true);
   ?>
  </td>
  <td>
   <?php
   $dfdf=$row['amount'];
   echo formatMoney($dfdf, true);
   ?>
```

```
      </td>
      <td><a href="delete.php?id=<?php echo $row['transaction_id']; ?>&invoice=<?php echo $_GET['invoice']; ?>&dle=<?php echo $_GET['id']; ?>&qty=<?php echo $row['qty'];?>&code=<?php echo $row['product'];?>"> Delete</a></td>
     </tr>
     <?php
   }
   ?>
   <tr>
    <td colspan="6"><strong style="font-size: 12px; color: #222222;">Total:</strong></td>
    <td colspan="2"><strong style="font-size: 12px; color: #222222;">
     <?php
     function formatMoney($number, $fractional=false) {
      if ($fractional) {
       $number = sprintf('%.2f', $number);
      }
      while (true) {
       $replaced = preg_replace('/(-?\d+)(\d\d\d)/', '$1,$2', $number);
       if ($replaced != $number) {
        $number = $replaced;
       } else {
        break;
       }
      }
     return $number;
   }
   $sdsd=$_GET['invoice'];
   $resultas = $db->prepare("SELECT sum(amount) FROM sales_order WHERE invoice= :a");
   $resultas->bindParam(':a', $sdsd);
   $resultas->execute();
   for($i=0; $rowas = $resultas->fetch(); $i++){
    $fgfg=$rowas['sum(amount)'];
    echo formatMoney($fgfg, true);
   }
   ?>
```

```
  </strong></td>
</tr>
</tbody>
</table><br>
<a rel="facebox" class="btn btn-primary" href="checkout.php?pt=<?php echo $_GET['id']?>&invoice=<?php echo $_GET['invoice']?>&total=<?php echo $fgfg ?>&cashier=<?php echo $session_admin_name?>">Check Out</a>

<div class="clearfix"></div>
</div>

</div>
</div>
<script src="../vendor/jquery/jquery.min.js"></script>
<script src="../vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="../vendor/metisMenu/metisMenu.min.js"></script>
<script src="../dist/js/sb-admin-2.js"></script>

<link href="vendors/chosen.min.css" rel="stylesheet" media="screen">
<script src="vendors/chosen.jquery.min.js"></script>
<script>
 $(function() {
  $(".chzn-select").chosen();

});
</script>

</body>

</html>
```

salesreport.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta name="description" content="">
    <meta name="author" content="">
    <title>Predict O'Analysis</title>

    <link rel="shortcut icon" href="logoc.jpg">
    <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
    <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
    <link href="../dist/css/sb-admin-2.css" rel="stylesheet">
    <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">
    <link href="../vendor/datatables-plugins/dataTables.bootstrap.css" rel="stylesheet">
    <link href="../vendor/datatables-responsive/dataTables.responsive.css" rel="stylesheet">
    <link rel="stylesheet" type="text/css" media="print" href="print.css" />
    <link rel="stylesheet" type="text/css" href="tcal.css" />
    <script type="text/javascript" src="tcal.js"></script>
    <link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />
    <script src="lib/jquery.js" type="text/javascript"></script>
    <script src="src/facebox.js" type="text/javascript"></script>
    <script type="text/javascript">
      jQuery(document).ready(function($) {
        $('a[rel*=facebox]').facebox({
          loadingImage : 'src/loading.gif',
          closeImage   : 'src/closelabel.png'
```

```
        })
      })
  </script>
</head>
<body>
  <?php include('navfixed.php');?>
  <div id="page-wrapper">
    <div class="container-fluid">
      <div class="row">
        <div class="col-lg-12">
          <h1 class="page-header">Sales Report</h1>
        </div>
        <div id="maintable">
          <div style="margin-top: -19px; margin-bottom: 21px;">
          </div>
          <table width="100%" class="table table-striped table-bordered table-hover" id="dataTables-example">
            <thead>
              <tr>
                <th > Transaction ID </th>
                <th > Date </th>
                <th > Customer Name </th>
                <th > Invoice Number </th>
                <th > Type of Payment </th>
                <th > Total Sales </th>
                <th > Balance </th>
                <th > Action </th>
              </tr>
            </thead>
            <tbody>
              <?php
              include('connect.php');
              $result = $db->prepare("SELECT * FROM sales ORDER BY transaction_id");
              $result->execute();
              for($i=0; $row = $result->fetch(); $i++){
```

```
                ?>
                <tr class="record">
                    <td>STI-000<?php echo $row['transaction_id']; ?></td>
                    <td><?php echo $row['date']; ?></td>
                    <td><?php echo $row['name']; ?></td>
                    <td><?php echo $row['invoice_number']; ?></td>
                    <td><?php echo $row['type']; ?></td>
                    <td><?php
                        $dsdsd=$row['amount'];
                        echo formatMoney($dsdsd, true);
                        ?>
                    </td>
                    <td><?php
                        $d=$row['balance'];
                        echo formatMoney($d, true);
                        ?>
                    </td>
                    <td>
                        <a href="#" id="<?php echo $row['transaction_id']; ?>" class="btn btn-danger delbutton" title="Click To Delete">
                            <span><i class="fa fa-trash"></i></span>
                        </a>
                         
                        <a class="btn btn-primary" href="salesprint.php?id=<?php echo $row['invoice_number']; ?>">
                            <span><i class="fa fa-print"></i></span>
                        </a>
                    </td>
                </tr>
                <?php
            }
            ?>

        </tbody>
        <thead>
```

```
<tr>
  <th colspan="5" style="border-top:1px solid #999999"> Total Amount </th>
  <th colspan="4" style="border-top:1px solid #999999">
    <?php
    function formatMoney($number, $fractional=false) {
      if ($fractional) {
        $number = sprintf('%.2f', $number);
      }
      while (true) {
        $replaced = preg_replace('/(-?\d+)(\d\d\d)/', '$1,$2', $number);
        if ($replaced != $number) {
          $number = $replaced;
        } else {
          break;
        }
      }
      return $number;
    }
    $results = $db->prepare("SELECT sum(amount) FROM sales ");
    $results->execute();
    for($i=0; $rows = $results->fetch(); $i++){
      $dsdsd=$rows['sum(amount)'];
      echo formatMoney($dsdsd, true);
    }
    ?>
  </th>
</tr>
</thead>
<thead>
  <tr>
  <th colspan="5" style="border-top:1px solid #999999" >Total balance </th>
    <th colspan="1" style="border-top:1px solid #999999">
      <th colspan="2" style="border-top:1px solid #999999">
        <?php
        $results = $db->prepare("SELECT sum(balance) FROM sales ");
```

```
                        $results->execute();
                        for($i=0; $rows = $results->fetch(); $i++){
                          $dsdsd=$rows['sum(balance)'];
                          echo formatMoney($dsdsd, true);
                        }
                        ?>
                      </th>
                    </tr>
                  </thead>
                </table>

                <a href="" onclick="window.print()" class="btn btn-primary"><i class="icon-print icon-large"></i> Print</a>
              </div>
            </div>
            <script src="js/jquery.js"></script>
            <script type="text/javascript">
              $(function() {
                $(".delbutton").click(function(){
var element = $(this);

//Find the id of the link that was clicked
var del_id = element.attr("id");

//Built a url to send
var info = 'id=' + del_id;
if(confirm("Sure you want to delete this update? There is NO undo!"))
{
 $.ajax({
  type: "GET",
  url: "deletesales.php",
  data: info,
  success: function(){
}
});
```

```
 $(this).parents(".record").animate({ backgroundColor: "#fbc7c7" }, "fast")
 .animate({ opacity: "hide" }, "slow");
}
return false;
});
            });
          </script>
     </div>
   </div>
</div>
<script src="../vendor/jquery/jquery.min.js"></script>
<script src="../vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="../vendor/metisMenu/metisMenu.min.js"></script>
<script src="../dist/js/sb-admin-2.js"></script>
<script src="../vendor/datatables/js/jquery.dataTables.min.js"></script>
<script src="../vendor/datatables-plugins/dataTables.bootstrap.min.js"></script>
<script src="../vendor/datatables-responsive/dataTables.responsive.js"></script>
<script>
   $(document).ready(function() {
      $('#dataTables-example').DataTable({
         responsive: true
      });
   });
</script>
<script>
            function print() {
               window.print();
            }
          </script>
</body>

</html>
```

yearly_chart.php

```
<?php
require_once('auth.php');
?>
<!DOCTYPE html>
<html lang="en">

<head>

  <meta charset="utf-8">

  <meta http-equiv="X-UA-Compatible" content="IE=edge">

  <meta name="viewport" content="width=device-width, initial-scale=1">

  <meta name="description" content="">


  <meta name="author" content="">

  <title>Predict O'Analysis</title>

  <link rel="shortcut icon" href="logo.png">

  <link href="../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <link href="../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

  <link href="../dist/css/sb-admin-2.css" rel="stylesheet">

  <link href="../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

    <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
```

```
<script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
<![endif]-->


<style>
 #chartdiv {
   width: 100%;
   height: 500px;
 }
</style>


<link href="src/facebox.css" media="screen" rel="stylesheet" type="text/css" />

<script src="lib/jquery.js" type="text/javascript"></script>

<script src="src/facebox.js" type="text/javascript"></script>

<script type="text/javascript">

 jQuery(document).ready(function($) {

   $('a[rel*=facebox]').facebox({

     loadingImage : 'src/loading.gif',

     closeImage   : 'src/closelabel.png'
   }
)
 }
)

</script>
```

```
<script language="javascript">

 function Clickheretoprint()

 {


  var disp_setting="toolbar=yes,location=no,directories=yes,menubar=yes,";
  disp_setting+="scrollbars=yes,width=800, height=400, left=100, top=25";
  var content_vlue = document.getElementById("content").innerHTML;

  var docprint=window.open("","",disp_setting);

  docprint.document.open();

  docprint.document.write('</head><body onLoad="self.print()" style="width: 1000px;
height:400; font-size: 20px; font-family: arial;">');

  docprint.document.write(content_vlue);

  docprint.document.close();

  docprint.focus();
 }
</script>
</head>
<body>
 <?php include('navfixed.php');?>
 <div id="page-wrapper">
  <div class="container-fluid">
   <div class="row">
    <div class="col-lg-12">
     <h1 class="page-header">Yearly Sales</h1>
    </div>
    <div class="content" id="content">
```

```
            <p> Yearly Sales Chart</p>
            <div class="row">
              <?php
              include('connect.php');
              $sql = "SELECT *, year as yea, SUM(amount) as qcount FROM sales GROUP BY year
";
              $query = $db->prepare($sql);
              $query->execute();
              $fetch = $query->fetchAll();
              foreach ($fetch as $key => $value) {
                $data[] = array('title'=>$value['yea'], 'value'=>$value['qcount']);
              }
              $d = json_encode($data);
              ?>

              <div id="chartdiv"></div>
            </div>
          </div>
        </div>
        <a href="javascript:Clickheretoprint()" style="font-size:15px"; class="btn btn-primary"><i
class="fa fa-print"></i>Print</a>
      </div>

    </div>

    <script src="plugins/amcharts/amcharts.js"></script>

    <script src="plugins/amcharts/serial.js"></script>

    <script src="plugins/export/export.min.js"></script>

    <link rel="stylesheet" href="plugins/export/export.css" type="text/css" media="all" />

    <script src="plugins/amcharts/themes/pattern.js"></script>
```

```
<script>

 var raw = '<?php echo $d; ?>';

 var data = JSON.parse(raw);
 var chart = AmCharts.makeChart( "chartdiv", {
  "type": "serial",
  "theme": "pattern",
  "dataProvider": data,
  "valueAxes": [ {
   "gridColor": "#FFFFFF",
   "gridAlpha": 0.2,
   "dashLength": 0
  } ],
  "gridAboveGraphs": true,
  "startDuration": 1,
  "graphs": [ {
   "balloonText": "[[category]]: <b>Total Sales [[value]]</b>",
   "fillAlphas": 0.8,
   "lineAlpha": 0.2,
   "type": "column",
   "valueField": "value"
  } ],
  "chartCursor": {
   "categoryBalloonEnabled": false,
   "cursorAlpha": 0,
   "zoomable": false
  },
  "categoryField": "title",
  "categoryAxis": {
   "gridPosition": "start",
   "gridAlpha": 0,
   "tickPosition": "start",
   "tickLength": 20
  },
```

```
      "export": {
        "enabled": true
      }

    } );
  </script>

  <script src="../vendor/jquery/jquery.min.js"></script>
  <script src="../vendor/bootstrap/js/bootstrap.min.js"></script>
  <script src="../vendor/metisMenu/metisMenu.min.js"></script>
  <script src="../dist/js/sb-admin-2.js"></script>

</body>
</html
```