PHP without SOAP Skeleton

The whole system can be divided into two parts based on function: user’s and admin’s. It can also be divided into two parts based on front-end and back-end.

For user’s system, there system has functions as follows:

## Login and Register parts:

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| login.php:  <?php  session\_start();  //log out  if($\_GET['action'] == "logout"){  unset($\_SESSION['userid']);  unset($\_SESSION['username']);  echo 'Log out successful. Redirecting back...';  echo '<script language="javascript">history.go(-1);</script>';  }  //Log in  if(!isset($\_POST['submit'])){  exit('Log in illegal!');  }  $username = htmlspecialchars($\_POST['username']);  $password = MD5($\_POST['password']);  include('DBconnect.php');  //check username and password  $qry = "select userid from user where username='$username' and password='$password' limit 1";  $check\_query = mysqli\_query($connect,$qry);  if($result = mysqli\_fetch\_array($check\_query)){  //log in successful  $\_SESSION['username'] = $username;  $\_SESSION['userid'] = $result['userid'];  echo 'Login successful. Redirecting to index...';  echo '<script language="javascript">window.location.href="index.php";</script>';  } else {  exit('Log in failed <a href="javascript:history.back(-1);">Retry</a>');  }  ?> |

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| register.php  <?php  if(!isset($\_POST['submit'])){  exit('Illegal request!');  }  $username = $\_POST['username'];  $password = $\_POST['password'];  $email = $\_POST['email'];  //register check  if(!preg\_match('/^[\w\x80-\xff]{3,15}$/', $username)){  exit('Illegal username <a href="javascript:history.back(-1);">Retry</a>');  }  if(strlen($password) < 6){  exit('Password too short <a href="javascript:history.back(-1);">Retry</a>');  }  if(preg\_match('/^([a-zA-Z0-9] [\_|-|.]?)\*[a-zA-Z0-9] @([a-zA-Z0-9] [\_|-|.]?)\*[a-zA-Z0-9] .[a-zA-Z]{2,3}$/', $email)){  exit('Illegal email <a href="javascript:history.back(-1);">Retry</a>');  }  //mysql connect  include('DBconnect.php');  //duplicate user check  $qry = "select userid from user where username='$username' limit 1";  $check\_query = mysqli\_query($connect,$qry);  if(mysqli\_fetch\_array($check\_query)){  echo 'Username: ',$username,' exists <a href="javascript:history.back(-1);">Retry</a>';  exit;  }  //write to mysql  $password = MD5($password);  $regdate = time();  $sql = "INSERT INTO user(username,password,email,regdate)VALUES('$username','$password','$email',$regdate)";  if(mysqli\_query($connect,$sql)){  exit('Register successful <a href="login.html">Log in</a>');  } else {  echo 'Mysql error: ',mysql\_error(),'<br />';  echo 'Click to <a href="javascript:history.back(-1);">Retry</a>';  }  ?> |

The user interface will not be discussed here but it contains necessary relative HTML and CSS files. For every page required user identification, there will be a “session” in php for user controlling:

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| Log in not required:  session\_start();  if(isset($\_SESSION['userid'])){  include('DBconnect.php');  $userid = $\_SESSION['userid'];  $username = $\_SESSION['username'];  }  Log in required:  session\_start();  if(!isset($\_SESSION['userid'])){  header("Location:login.html");  exit();  } |

This technology is also used to administrator authorities.

## Main User Interface

The functions and structures of main user interface has been discussed in the main report. Here just some basic php operations will be discussed.

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| Add to favorite button:  <?php  // session\_start();  if(isset($\_SESSION['userid'])){  //check  $check\_user\_stock\_duplicate = "SELECT usid FROM user\_stock WHERE uid=$userid AND sym='$symbol' LIMIT 1 ";  $check\_stock\_history = "SELECT StockID FROM Stocks\_history WHERE Symbol='$symbol' LIMIT 1";  $check\_stock\_current = "SELECT StockID FROM Stocks\_realtime WHERE Symbol='$symbol' LIMIT 1";  $check\_duplicate = mysqli\_query($connect,$check\_user\_stock\_duplicate);  $check\_exist = mysqli\_query($connect,$check\_stock\_history);  //check duplicate  if(mysqli\_fetch\_array($check\_duplicate)){  //if already has  echo '<button type="button" onclick="loadRemDoc()" class="btn btn-primary" data-toggle="button" aria-pressed="false" autocomplete="off">Remove</button>';  }  //check stock exists  elseif(mysqli\_fetch\_array($check\_exist)){  //if do not have  echo '<button type="button" onclick="loadAddDoc()" class="btn btn-primary" data-toggle="button" aria-pressed="false" autocomplete="off">Add</button>';  }  else{  //if not  echo 'Stock ',$symbol,' does not exist.';  }  }  ?> |

This button can add stocks to user’s favorite list. Thus, users will be able to query for his or her own stock lists.

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| getData.php:  <?php  require\_once('DBconnect.php');    //URL parameter  $symbol=$\_GET['s'];  $ch=$\_GET['ch'];    //today's date  date\_default\_timezone\_set('America/New\_York');  $date = date('Y-m-d');  // echo $date;  $year = date('Y');  $month = date('m');  $day = date('d');  //remove 0  $pattern = "/(0+)(\d+)/i";  $replacement = "\$2";  $month = preg\_replace($pattern,$replacement,$month);  $day = preg\_replace($pattern,$replacement,$day);  $date2 = $month.'/'.$day.'/'.$year;  // echo $date2;    //check sdate  if(!empty($\_GET['sdate'])){  $start\_date=$\_GET['sdate'];  $start\_date=strtotime($start\_date);  $start\_date = date('Y-m-d', $start\_date);  }  else{  //calculate one year before  $start\_date = strtotime('-1 year', strtotime($date));  $start\_date = date('Y-m-d', $start\_date);  }    //check edate  if(!empty($\_GET['edate'])){  $end\_date=$\_GET['edate'];  $end\_date=strtotime($end\_date);  $end\_date = date('Y-m-d', $end\_date);  }  else{  $end\_date=$date;  }    // echo $start\_date;  // echo $end\_date;    if($ch=='c'){  $qry = "SELECT Time, Price FROM Stocks\_realtime WHERE Symbol='$symbol' AND Date='$date2' ORDER BY StockID";  $result = mysqli\_query($connect,$qry);  $watchdog=0;  while($result->num\_rows<1){  $day=$day-1;  $date2 = $month.'/'.$day.'/'.$year;  $qry = "SELECT Time, Price FROM Stocks\_realtime WHERE Symbol='$symbol' AND Date='$date2' ORDER BY StockID";  $result = mysqli\_query($connect,$qry);  $watchdog++;  if($watchdog>15){  die("No data for this stock. ");  }  }  }  else{  $qry= "SELECT Date, Close FROM Stocks\_history WHERE Symbol='$symbol' AND Date>='$start\_date' AND Date<='$end\_date' ORDER BY Date";  $result = mysqli\_query($connect,$qry);  }      if($result==false){  echo "Mysql query failed. ";  }  mysqli\_close($connect);    $table = array();  $table['cols'] = array(  //Labels for the chart, these represent the column titles  array('id' => '', 'label' => 'Date', 'type' => 'string'),  array('id' => '', 'label' => 'Price', 'type' => 'number')  );  $rows = array();  foreach($result as $row){  $temp = array();    //Values  if($ch=='c'){  $temp[] = array('v' => (string) $row[Time]);  $temp[] = array('v' => (float) $row[Price]);  }  else{  $temp[] = array('v' => (string) $row[Date]);  $temp[] = array('v' => (float) $row[Close]);  }  $rows[] = array('c' => $temp);  }  $result->free();    $table['rows'] = $rows;    $jsonTable = json\_encode($table,true);  echo $jsonTable;  ?> |

This php can return required JSON file for chart as required. If no date provided, it will use default date.

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| livesearch.php  <?php  if(!empty($\_GET['q']))  {  require\_once('DBconnect.php');  $q=$\_GET['q'];  $query="SELECT symbol,Name FROM sys\_stock WHERE symbol LIKE '%$q%' OR Name LIKE '%$q%'";  $result=mysqli\_query($connect,$query);  if($result==false){  echo "Mysql query failed. ";  }    echo '<div class="table-responsive"><table class="table table-hover">';  while($output=mysqli\_fetch\_assoc($result))  {  $symbol=$output[symbol];  $realtime\_qry="SELECT Time,Price,Date FROM Stocks\_realtime WHERE Symbol='$symbol' ORDER BY StockID desc limit 1";  $realtime\_result = mysqli\_query($connect,$realtime\_qry);  if($realtime\_result==false){  echo "Mysql realtime data query failed. ";  }  $realtime\_row = mysqli\_fetch\_array($realtime\_result);  echo "<tr><td><a href='stock.php?s=".$output[symbol]."&ch=c'>" .$output[symbol]. "</a></td>";  echo "<td><a href='stock.php?s=".$output[symbol]."&ch=c'>".$output[Name]."</a></td>";  echo "<td>Latest Price: ",$realtime\_row['Price'],"</td></tr>";  }//end while  echo "</table></div>";  }  ?> |

And next part will be admin system:

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| Add to system stock list:  <?php  session\_start();  if(!isset($\_SESSION['userid'])){  echo 'Please log in first. ';  echo '<script language="javascript">history.go(-1);</script>';  $userid = $\_SESSION['userid'];  $username = $\_SESSION['username'];  if($userid>10){  echo 'Unauthorized user. ';  echo '<script language="javascript">history.go(-1);</script>';  }  }  ?>  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">  <html xmlns="http://www.w3.org/1999/xhtml">  <head>  <title>Admin - System Stock Manager</title>  <!-- Bootstrap -->  <meta name="viewport" content="width=device-width, initial-scale=1.0" />  <link href="//netdna.bootstrapcdn.com/bootstrap/3.0.0/css/bootstrap.min.css" rel="stylesheet">  <link href="//netdna.bootstrapcdn.com/font-awesome/3.2.1/css/font-awesome.css" rel="stylesheet" />  <link href="https://fonts.googleapis.com/css?family=Abel|Open+Sans:400,600" rel="stylesheet" />  <link href="adminmanage.css" rel="stylesheet" type="text/css" />  <!--Bootstrap ends-->  </head>  <body>  <div class="container">  <div class="row">  <div class="col-md-6 col-md-offset-3 panel panel-default">  <p class="text-center"><h1>Admin</h1></p>  <h3>Alert:</h3>  <?php  require 'DBconnect.php';    $symbol=$\_GET['s'];  $sname=$\_GET['n'];  $ope=$\_GET['ope'];      $check\_sys\_stock\_duplicate = "SELECT stockid FROM sys\_stock WHERE symbol='$symbol' LIMIT 1 ";  $check\_sys\_duplicate = mysqli\_query($connect,$check\_sys\_stock\_duplicate);    if($ope=="add"){  //check duplicate  //if exists  if(mysqli\_fetch\_array($check\_sys\_duplicate)){  echo 'Add failed. You have already added ',$symbol,' before. ';  }  //stock exists  elseif(empty($\_GET['n'])){  echo 'Add failed. Stock Name cannot be empty. ';  }  else{  $add\_sys\_qry = "INSERT INTO sys\_stock(symbol,Name) VALUES('$symbol','$sname')";  $add\_sys\_result = mysqli\_query($connect,$add\_sys\_qry);  if($add\_sys\_result){  echo 'Add ',$symbol, ' successful!<br />';  }  else{  echo 'Add failed!<br />';  }  //add ema\_pre  $add\_ema\_qry = "INSERT INTO ema\_pre(Symbol) VALUES('$symbol')";  $add\_ema\_result = mysqli\_query($connect,$add\_ema\_qry);  if($add\_ema\_result){  echo 'Add ',$symbol, ' to ema\_pre successful!<br />';  }  else{  echo 'Add ema\_pre failed!<br />';  }  //add svm\_pre  $add\_svm\_qry = "INSERT INTO svm\_pre(Symbol) VALUES('$symbol')";  $add\_svm\_result = mysqli\_query($connect,$add\_svm\_qry);  if($add\_svm\_result){  echo 'Add ',$symbol, ' to svm\_pre successful!<br />';  }  else{  echo 'Add svm\_pre failed!<br />';  }  }  }  elseif($ope=="remove"){  //check duplicate  if(mysqli\_fetch\_array($check\_sys\_duplicate)){  //if exists  $rem\_sys\_qry="DELETE FROM sys\_stock WHERE symbol='$symbol'";  $rem\_sys\_stock=mysqli\_query($connect,$rem\_sys\_qry);  if($rem\_sys\_stock){  echo 'Remove stock ',$symbol,' successful.<br />';  }  else{  echo 'Remove failed!<br />';  }  //remove from ema\_pre  $rem\_ema\_qry="DELETE FROM ema\_pre WHERE symbol='$symbol'";  $rem\_ema\_stock=mysqli\_query($connect,$rem\_ema\_qry);  if($rem\_ema\_stock){  echo 'Remove stock ',$symbol,' from ema\_pre successful.<br />';  }  else{  echo 'Remove from ema\_pre failed!<br />';  }  //remove from svm\_pre  $rem\_svm\_qry="DELETE FROM svm\_pre WHERE symbol='$symbol'";  $rem\_svm\_stock=mysqli\_query($connect,$rem\_svm\_qry);  if($rem\_svm\_stock){  echo 'Remove stock ',$symbol,' from svm\_pre successful.<br />';  }  else{  echo 'Remove from svm\_pre failed!<br />';  }  }  else{  //if not  echo 'You do not have stock ',$symbol;  }  }  else{  echo 'Please choose a valid operation. ';  }    // check system stock list  $check\_all\_query = "SELECT \* FROM sys\_stock WHERE 1";  $check\_all\_sys = mysqli\_query($connect,$check\_all\_query);  echo '<p><br />System Stock List: <br />';  while($sys\_stock\_row = mysqli\_fetch\_array($check\_all\_sys)){  echo ' Symbol: ',$sys\_stock\_row['symbol'],' Name: ',$sys\_stock\_row['Name'],' <a href="addsysstock.php?s=',$sys\_stock\_row['symbol'],'&ope=remove">delete</a><br />';  }  echo '</p>';  ?>  <form action="addsysstock.php" method="get" class="margin-base-vertical">  <p class="input-group">  <span class="input-group-addon">Stock Symbol:</span>  <input type="text" name="s" value="" class="form-control input-lg"/><br/>  </p>  <p class="input-group">  <span class="input-group-addon">Stock Name:</span>  <input type="text" name="n" value="" class="form-control input-lg"/><br/>  </p>  <p class="text-center">  <button name="ope" type="submit" value="add" class="btn btn-success btn-lg" />Add</button>  <button name="ope" type="submit" value="remove" class="btn btn-success btn-lg" />Remove</button>  </p>  </form>  <span><a href="index.php">Admin </a>|<a href="../index.php"> Index</a></span>  </div>  <!--panel ends-->  </div>  <!--row ends-->  </div>  <!--container ends-->  </body>  </html> |

It can be able to add and delete system stock lists without directly maintain the mysql database.

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| update\_current.php  <?php  ignore\_user\_abort(true);  set\_time\_limit(0);  while(1){  include\_once('class.yahoostock.php');  require 'DBconnect.php';    $sys\_stock\_qry = "SELECT symbol FROM sys\_stock WHERE 1";  $sys\_stock\_result = mysqli\_query($connect,$sys\_stock\_qry);  $objYahooStock = new YahooStock;  $objYahooStock->addFormat("snl1d1t1v");    while($sys\_stock\_row = mysqli\_fetch\_array($sys\_stock\_result)){  $objYahooStock->addStock($sys\_stock\_row['symbol']);  }  foreach( $objYahooStock->getQuotes() as $code => $stock){  $result1 = $connect->query("SELECT \* FROM Stocks\_realtime WHERE Date=$stock[3] AND Time=$stock[4] AND Symbol=$stock[0] AND Price=$stock[2] LIMIT 1");  if($result1->num\_rows<=0)  {  // echo "find stock no time. ";  $connect->query("INSERT INTO Stocks\_realtime (Symbol,Company, Price, Date, Time, Volume) VALUES ($stock[0],$stock[1],$stock[2],$stock[3],$stock[4],  $stock[5])");  // echo $stock[0]," ",$stock[1]," <br />";  }  }//end foreach  // echo "Working Successfully!";  sleep(30);  }//while ends  ?> |

Update current function will constantly add stocks information into database. It will automatically update whenever system stocks changed.

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| Update history.php:  <?php  ignore\_user\_abort(true);  set\_time\_limit(0);  include\_once('class.yahoostock.php');  require 'DBconnect.php';  while(1){  $sys\_stock\_qry = "SELECT symbol FROM sys\_stock WHERE 1";  $sys\_stock\_result = mysqli\_query($connect,$sys\_stock\_qry);    $delete\_history\_qry="DELETE FROM Stocks\_history WHERE 1";  $delete\_history=mysqli\_query($connect,$delete\_history\_qry);  if ($delete\_history === TRUE) {  echo "Delete History successfully! ";  } else {  echo "Error Delete history: " . $connect->error;  }  $objYahooStock = new YahooStock;    date\_default\_timezone\_set('America/New\_York');  $year=date(Y);  $last\_year=$year-1;  $month=date(m)-1;  $day=date(d);  while($sys\_stock\_row = mysqli\_fetch\_array($sys\_stock\_result)){  $value = $sys\_stock\_row['symbol'];  echo $value;    $isFirst = true;  $s = file\_get\_contents("http://real-chart.finance.yahoo.com/table.csv?s=$value&d=$month&e=$day&f=$year&g=d&a=$month&b=$day&c=$last\_year&ignore=.csv");  //echo $s;  $sourceLines = str\_getcsv($s, "\n");  foreach($sourceLines as $line)  {  if ($isFirst) {  $isFirst = false;  continue;  }  $data = explode( ',', $line);  $sql="INSERT INTO Stocks\_history (Symbol,Date,Open, High, Low, Close, Volume) VALUES ('$value', '$data[0]',$data[1],$data[2],$data[3],$data[4],  $data[5])";  //echo $sql;  $add\_result = mysqli\_query($connect,$sql);  /\*  if ($connect->query($sql) === TRUE) {  echo "Update History successfully! ";  } else {  echo "Error updating history: " . $connect->error;  }  \*/  //echo $connect;  }    }    sleep(7200);  }//while ends  ?> |

Update history will maintain the history prices of each stock. It will automatically update too.

Also there is a API for update the prediction database since we may use some other software which is not supported by most server like Matlab. This api will allow us to update the database remotely.

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| remote update:    $symbol=$\_GET['s'];  $database=$\_GET['d'];  $val=$\_GET['v'];    echo 's=',$symbol,' d=',$database,' v=',$val;    if($database=='b'){  $table='b\_pre';  }  else if($database=='ema'){  $table='ema\_pre';  }  else if($database=='svm'){  $table='svm\_pre';  }  else if($database=='ann'){  $table='ann\_pre';  }  else{  echo 'databse error. ';  }    $check\_duplicate = "SELECT \* FROM $table WHERE Symbol='$symbol' LIMIT 1 ";  $check\_result = mysqli\_query($connect,$check\_duplicate);    if(mysqli\_fetch\_array($check\_result)==0){  $add\_qry = "INSERT INTO $table(Symbol,Predict) VALUES('$symbol',$val)";  $add\_result = mysqli\_query($connect,$add\_qry);  if($add\_result){  echo 'Add ',$symbol,' to ',$table,' successful!';  }  else{  echo 'Add ',$symbol,' to ',$table,' failed!';  }  }  else{  $update\_pre\_qry = "UPDATE $table SET Predict=$val WHERE Symbol='$symbol'";  $update\_pre\_result = mysqli\_query($connect,$update\_pre\_qry);  if($update\_pre\_result==0){  echo ' UPDATE error. ';  }  } |