Software Design Description Document For INGAZ for print

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SDD Version	Date	Reason for Change
1.0	29-April-2020	SDD First version's specifications are defined
1.1	2-May-2020	Context viewpoint
1.2	4-May-2020	Data Design
1.3	10-May-2020	Human Interface Design, Requirements Matrix
1.4	12-May-2020	Upload Class Diagram

Table 1: Document version history

GitHub: https://github.com/OmarShereef/INGAZ-for-print

Contents

1 Introduction

1.1 Purpose of this document

The purpose of this document is to provide a full description of how the Ingaz system works .The Ingaz system is an online web-based application system to provide a high quality printing service to benefit our clients.This software design document (SDD) will describe the aim of the system and it's functionalities.In addition, the document will show all constraints on the system , all contraventional interfaces designs and all diagrams that were needed to build the system.

1.2 Scope of this document

The document targets the clients, employees, and companies administration which has a role in the companies business flow.

1.3 Overview

This document describes most of the system diagrams and architectures. it also previews how the system main functionalities work and how the user views and interacts with the software. The sections in this document gives a detailed description for the diagrams that help the developer developing the system.It includes the class diagrams , sequence diagrams and architecture diagrams.

2 Project Overview

The system's main target is to provide a service that has only been available internationally to Egyptians. The system allows the client to create,customize and print flyers, business cards and notebooks with simple clicks. [2]

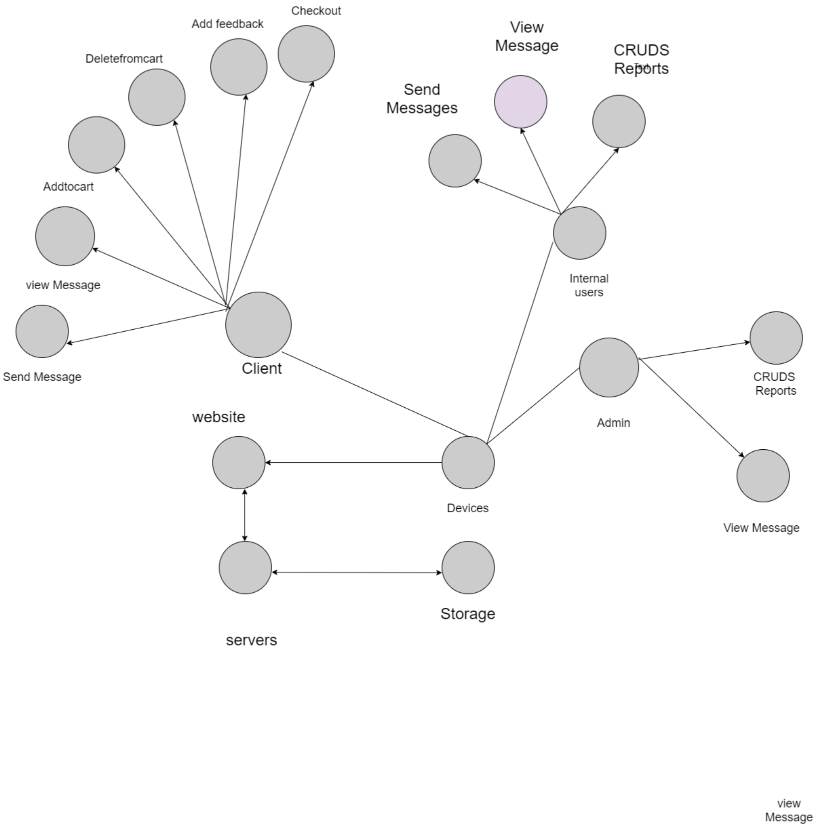


Figure 1: Project overview diagram
[4]

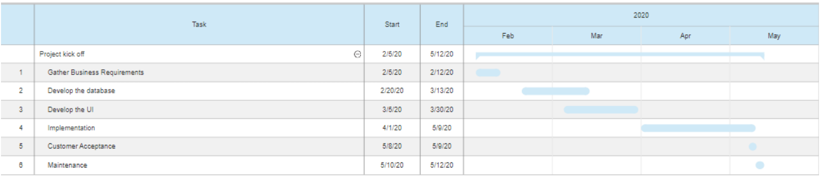
2.1 Project Scope

This system aims to provide a high quality printing service to benefit our clients. It is expected to present the clients' designs in the best way possible to help them reach their goals and visions

3 Goals and objectives

In terms of the issue of visiting the printing store, our system offers a delivery service that delivers all over Egypt [1]. It also less time consuming and will be effective for people in places that are far from the printing store.

3.1 Project Timeline



	Task	Start	End
	Project kick off	2/5/20	5/12/20
1	Gather Business Requirements	2/5/20	2/12/20
2	Develop the database	2/20/20	3/13/20
3	Develop the UI	3/5/20	3/30/20
4	Implementation	4/1/20	5/9/20
5	Customer Acceptance	5/8/20	5/9/20
6	Maintenance	5/10/20	5/12/20

Figure 2: Gantt chart diagram

4 Context viewpoint

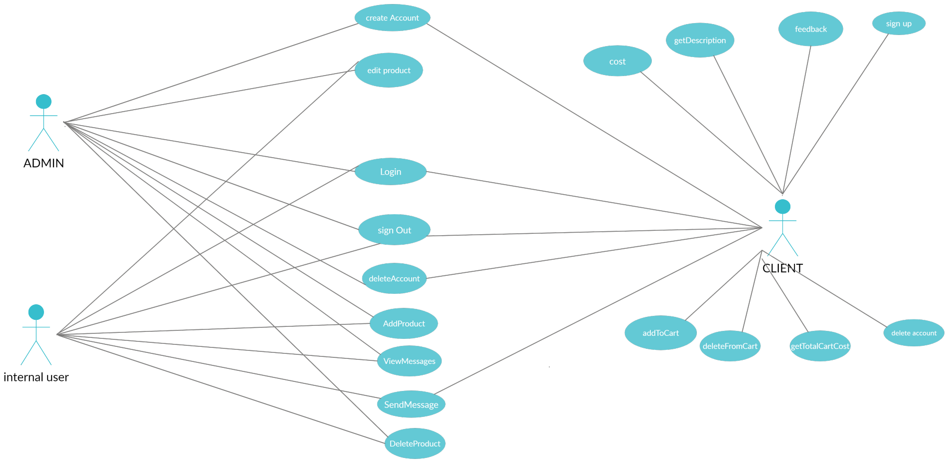


Figure 3: Use Case Diagram
[3]

5 System Architecture

5.0.1 Logical Diagram

In INgaz system we use the Model View Controller design pattern,the MVC pattern was made on the purpose of the classifying the software into three main parts.The Model contains only the pure application data, it contains no logic describing how to present the data to a user.The View presents the model's data to the user. The view knows how to access the model's data, but it does not know what this data means or what the user can do to manipulate it.The Controller exists between the view and the model. It listens to events triggered by the view (or another external source) and executes the appropriate reaction to these events. In most cases, the reaction is to call a method on the model. Since the view and the model are connected through a notification mechanism, the result of this action is then automatically reflected in the view In our system there are 3 subsystems as the admin which he can do anything in the system and the internal users can CRUD and send and view messages to and from client and finally the client which can make their own product and send and view messages to and from internal users.

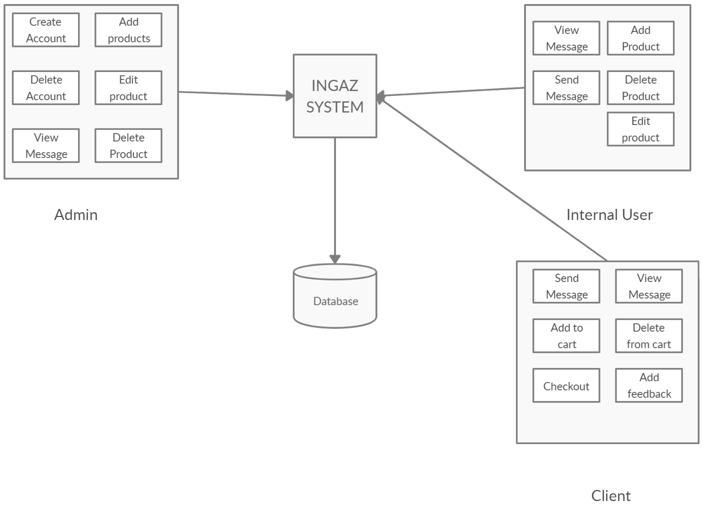


Figure 4: Logical diagram

5.1 Composition viewpoint

Firstly Admin can CRUD (Add,delete, edit) anything from the system and view the messages between the admin and the internal users. then internal users also can add , delete, edit products and send and view message to and from the client.Lastly Client customizes his own product and proceed to checkout to know the total cost of all in the cart.

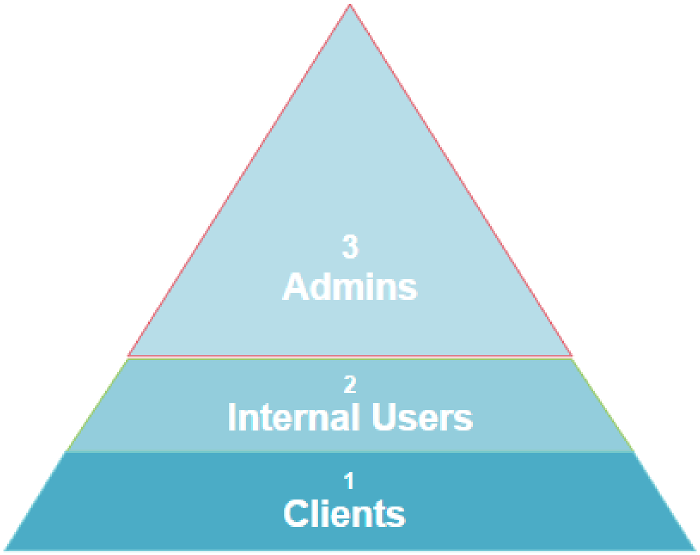


Figure 5: Hierarchical Diagram
[5]

5.2 Structure viewpoint

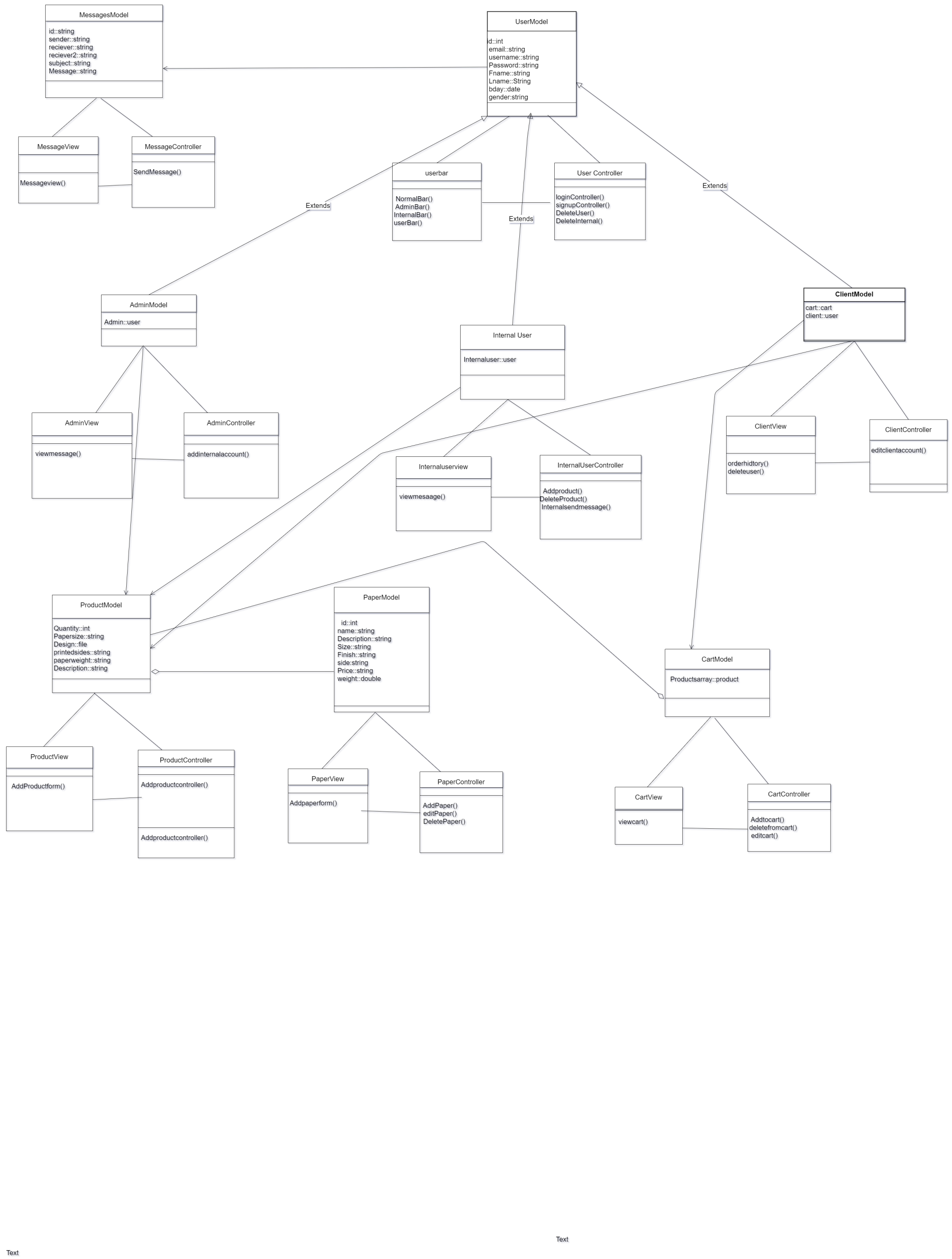
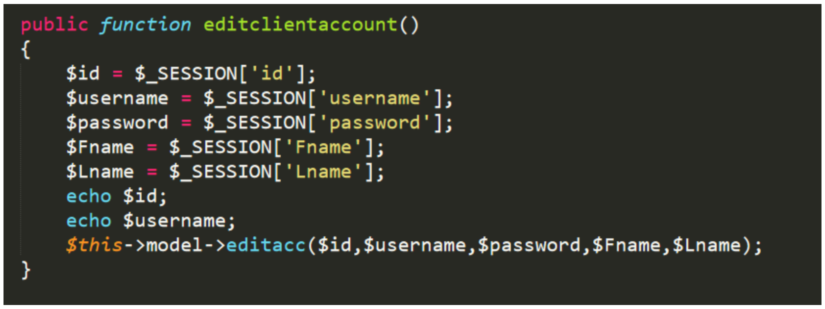


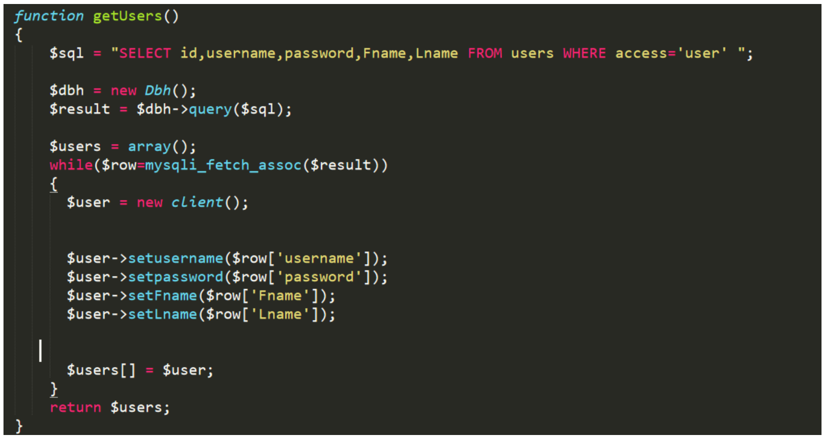
Figure 6: Class Diagram

5.3 Algorithm viewpoint



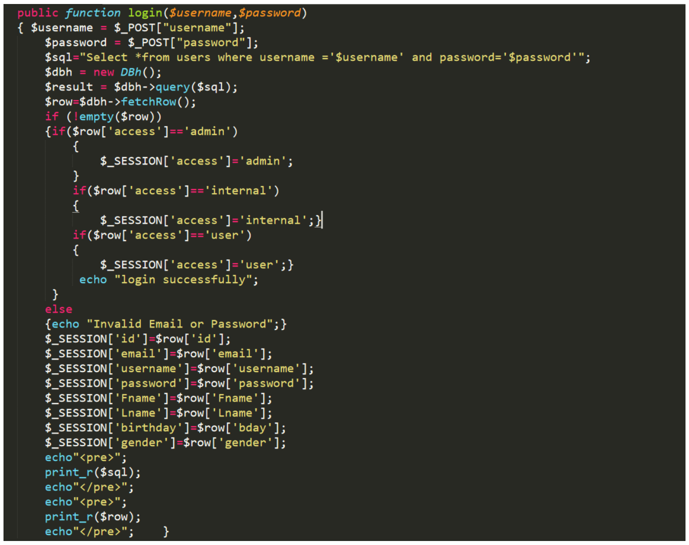
```php
public function editclientaccount()
{
    $id = $_SESSION['id'];
    $username = $_SESSION['username'];
    $password = $_SESSION['password'];
    $Fname = $_SESSION['Fname'];
    $Lname = $_SESSION['Lname'];
    echo $id;
    echo $username;
    $this->model->editacc($id,$username,$password,$Fname,$Lname);
}
```

Figure 7: Edit account function



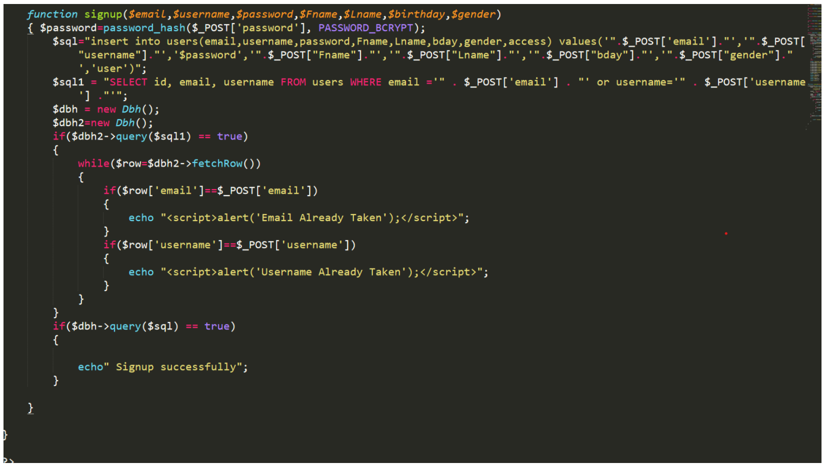
```php
function getUsers()
{
    $sql = "SELECT id,username,password,Fname,Lname FROM users WHERE access='user' ";

    $dbh = new Dbh();
    $result = $dbh->query($sql);

    $users = array();
    while($row=mysqli_fetch_assoc($result))
    {
      $user = new client();


      $user->setusername($row['username']);
      $user->setpassword($row['password']);
      $user->setFname($row['Fname']);
      $user->setLname($row['Lname']);


      $users[] = $user;
    }
    return $users;
}
```

Figure 8: GetUsers function



```
public function login($username,$password)
{ $username = $_POST["username"];
    $password = $_POST["password"];
    $sql="Select *from users where username ='$username' and password='$password'";
    $dbh = new DBh();
    $result = $dbh->query($sql);
    $row=$dbh->fetchRow();
    if (!empty($row))
    {if($row['access']=='admin')
        {
            $_SESSION['access']='admin';
        }
        if($row['access']=='internal')
        {
            $_SESSION['access']='internal';}
        if($row['access']=='user')
        {
            $_SESSION['access']='user';}
         echo "login successfully";
     }
    else
    {echo "Invalid Email or Password";}
    $_SESSION['id']=$row['id'];
    $_SESSION['email']=$row['email'];
    $_SESSION['username']=$row['username'];
    $_SESSION['password']=$row['password'];
    $_SESSION['Fname']=$row['Fname'];
    $_SESSION['Lname']=$row['Lname'];
    $_SESSION['birthday']=$row['bday'];
    $_SESSION['gender']=$row['gender'];
    echo"<pre>";
    print_r($sql);
    echo"</pre>";
    echo"<pre>";
    print_r($row);
    echo"</pre>";    }
```

Figure 9: Login function



```
    function signup($email,$username,$password,$Fname,$Lname,$birthday,$gender)
    { $password=password_hash($_POST['password'], PASSWORD_BCRYPT);
        $sql="insert into users(email,username,password,Fname,Lname,bday,gender,access) values('".$_POST['email']."','".$_POST[
            "username"]."','$password','".$_POST["Fname"]."','".$_POST["Lname"]."','".$_POST["bday"]."','".$_POST["gender"]."
            ','user')";
        $sql1 = "SELECT id, email, username FROM users WHERE email ='" . $_POST['email'] . "' or username='" . $_POST['username
            '] ."'";
        $dbh = new Dbh();
        $dbh2=new Dbh();
        if($dbh2->query($sql1) == true)
        {
            while($row=$dbh2->fetchRow())
            {
                if($row['email']==$_POST['email'])
                {
                    echo "<script>alert('Email Already Taken');</script>";
                }
                if($row['username']==$_POST['username'])
                {
                    echo "<script>alert('Username Already Taken');</script>";
                }
            }
        }
        if($dbh->query($sql) == true)
        {

            echo" Signup successfully";
        }

    }

}

?>
```

Figure 10: Signup function

5.4 Interaction viewpoint

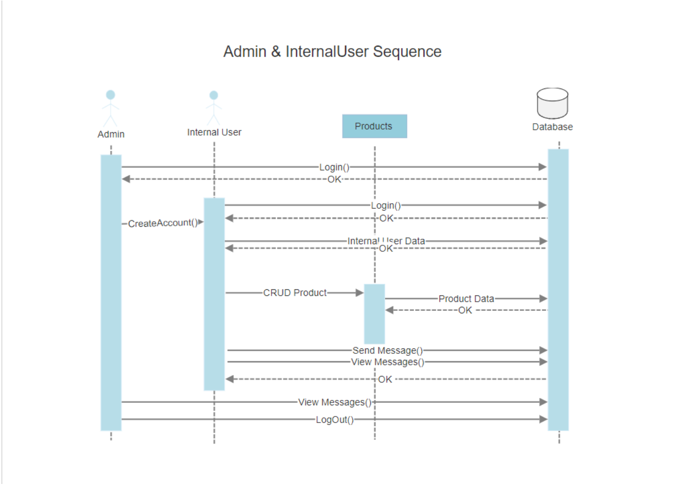


Figure 11: Admin Internal User diagram

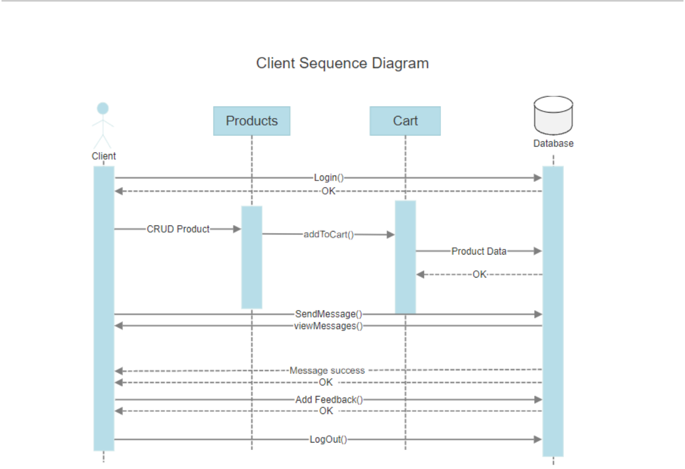


Figure 12: Client diagram

6 Data Design

6.1 Data Description

Before Creating this system, the printing office was paper based, take details with papers.This system allows them to perform these actions with web application using forms.The system can add many clients.Database contains 5 tables.Tables users and products are the main tables which mainly rest of tables inherit from them. Also we use (Bcrypt) as hashing method to hash passwords for the security of the user.

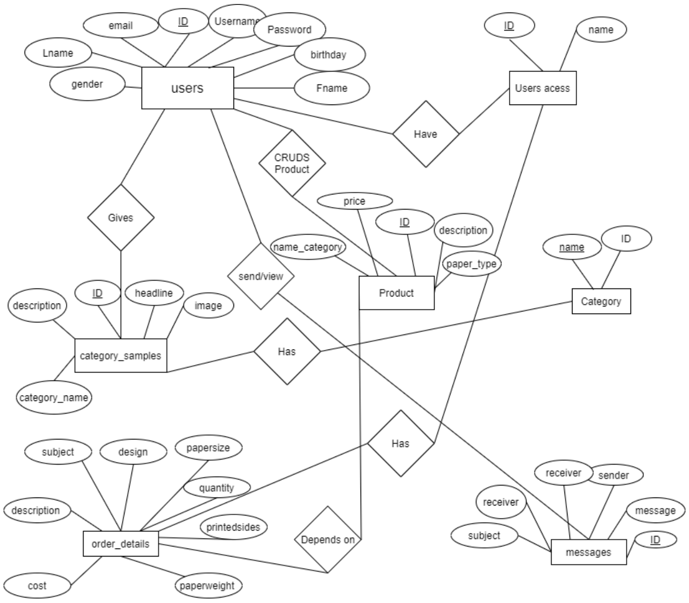


Figure 13: ER Diagram

6.2 Database design description

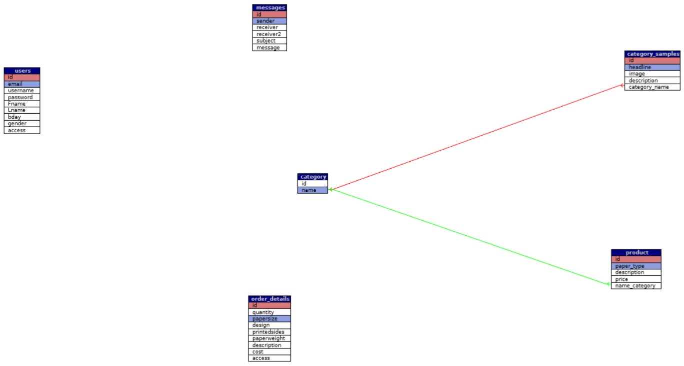


Figure 14: Database design Diagram

7 Human Interface Design

7.1 User Interface

In our Ingaz system when a client opens the web page he is automatically redirected to the homepage. He is then required to choose the product that he wishes to print. He will then start to customize the product in terms of his chosen design, the style, the size and type along with several other characteristics if required. Then the client will chose the requested delivery time from a chart with the prices depending on the delivery time. Click on ”add to basket”, at this stage the client has two options whether to go back and shop again for other products or to proceed to the checkout page. At the checkout stage the client is required to either log in or sign up into the website to finalise his purchase transaction and get a receipt.

7.2 Screen Images

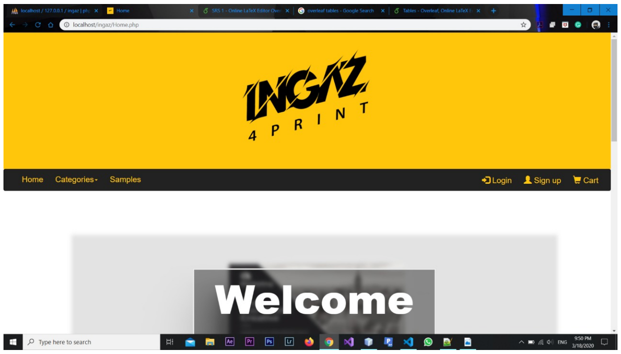


Figure 15: home page

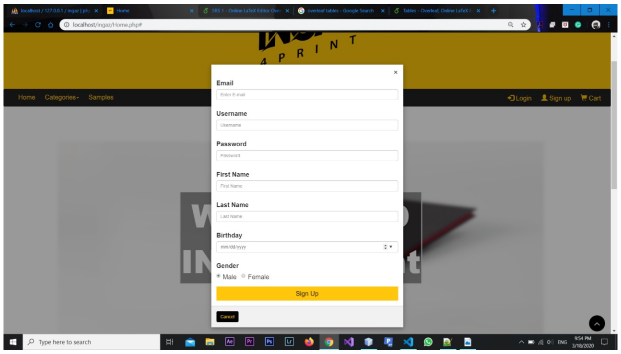


Figure 16: Signup form

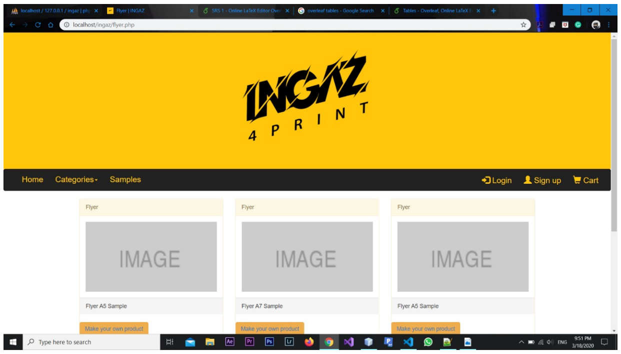
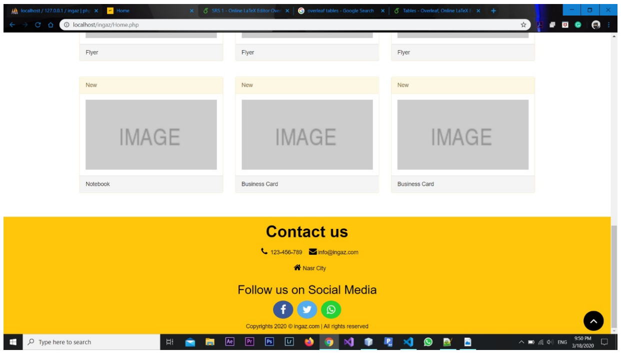


Figure 17: Product categories page


localhost / 127.0.0.1 / ingaz | php
Home
SRS 1 - Online LaTeX Editor Over
overleaf tables - Google Search
Tables - Overleaf, Online LaTeX E
Flyer
Flyer
Flyer
New
IMAGE
Notebook
New
IMAGE
Business Card
New
IMAGE
Business Card
Type here to search
ENG
9:50 PM
3/18/2020

localhost/ingaz/Home.php

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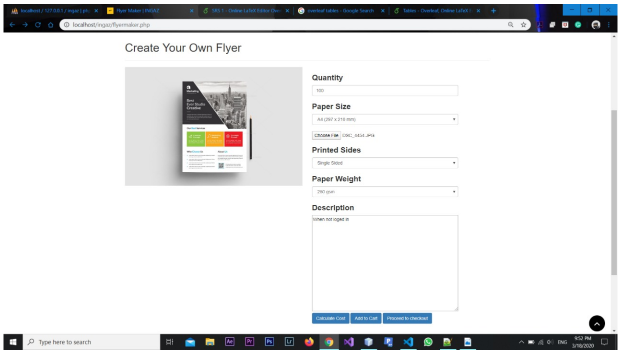
Figure 18: Product categories page continued



localhost/ingaz/flyermaker.php

Create Your Own Flyer

Quantity: 100

Paper Size: A4 (297 x 210 mm)

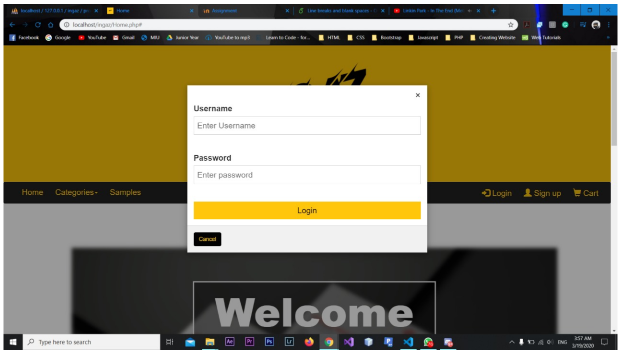
DSC_4454.JPG

Printed Sides: Single Sided

Paper Weight: 250 gsm

Description: When not loged in

Figure 19: Product customization page (Not logged in)

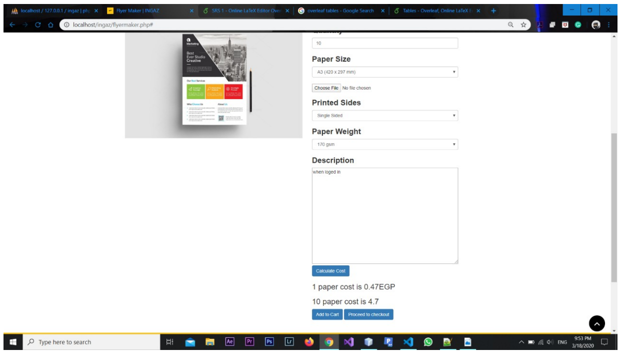


localhost/ingaz/Home.php#

Username: Enter Username

Password: Enter password

Figure 20: Login form



10

Paper Size: A3 (420 x 297 mm)

Choose File No file chosen

Printed Sides: Single Sided

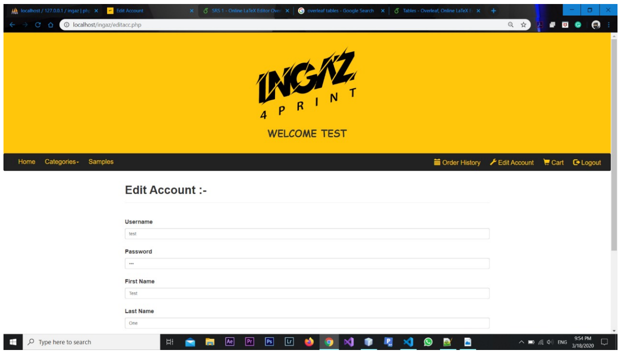
Paper Weight: 170 gsm

Description: when loged in

1 paper cost is 0.47EGP

10 paper cost is 4.7

Figure 21: Product customization page (Logged in)



Edit Account :-

Username: test

Password: ***

First Name: Test

Last Name: One

Figure 22: Edit Account page

8 Requirements Matrix

Requirement ID	Requirement Name	Requirement Description	Status
INGAZ01	Signup	Clients should sign up to buy products.	completed
INGAZ02	Login	Users login to profile with username and password .	completed
INGAZ04	CheckOut	Clients must go through when checking out the products in the cart.	completed
INGAZ09	AddFeedback	Clients should be able to add their feedback of the websiteand it's services.	In progress
INGAZ07	AddToCart	Clients save the product to their cart.	completed
INGAZ13	Creat Account	The admin creates account for internal users.	completed
INGAZ15	Add Product	The internal user and admin are only who can add product.	completed

Table 2: Requirements Matrix table

References

[1] Aron Priest Andy Smith. *Online Printing Services by Solopress*. 1999. URL: `https://www.solopress.com/`.

[2] Aldrin Bhunu. “An investigation into the adoption and implementation of an online business network platform for the printing industry and the associated benefits”. In: (2018).

[3] Cinergix. *CREATELY APP*. 2008. URL: `https://app.creately.com/diagram/H3rTrFI5GQU/edit`.

[4] Oliver Zahrt Joachim Seibert Martin Seibert. *DRAW.IO FOR DIAGRAMS*. 1994. URL: `https://app.diagrams.net/`.

[5] *SMART DRAW*. 1994. URL: `https://cloud.smartdraw.com/`.