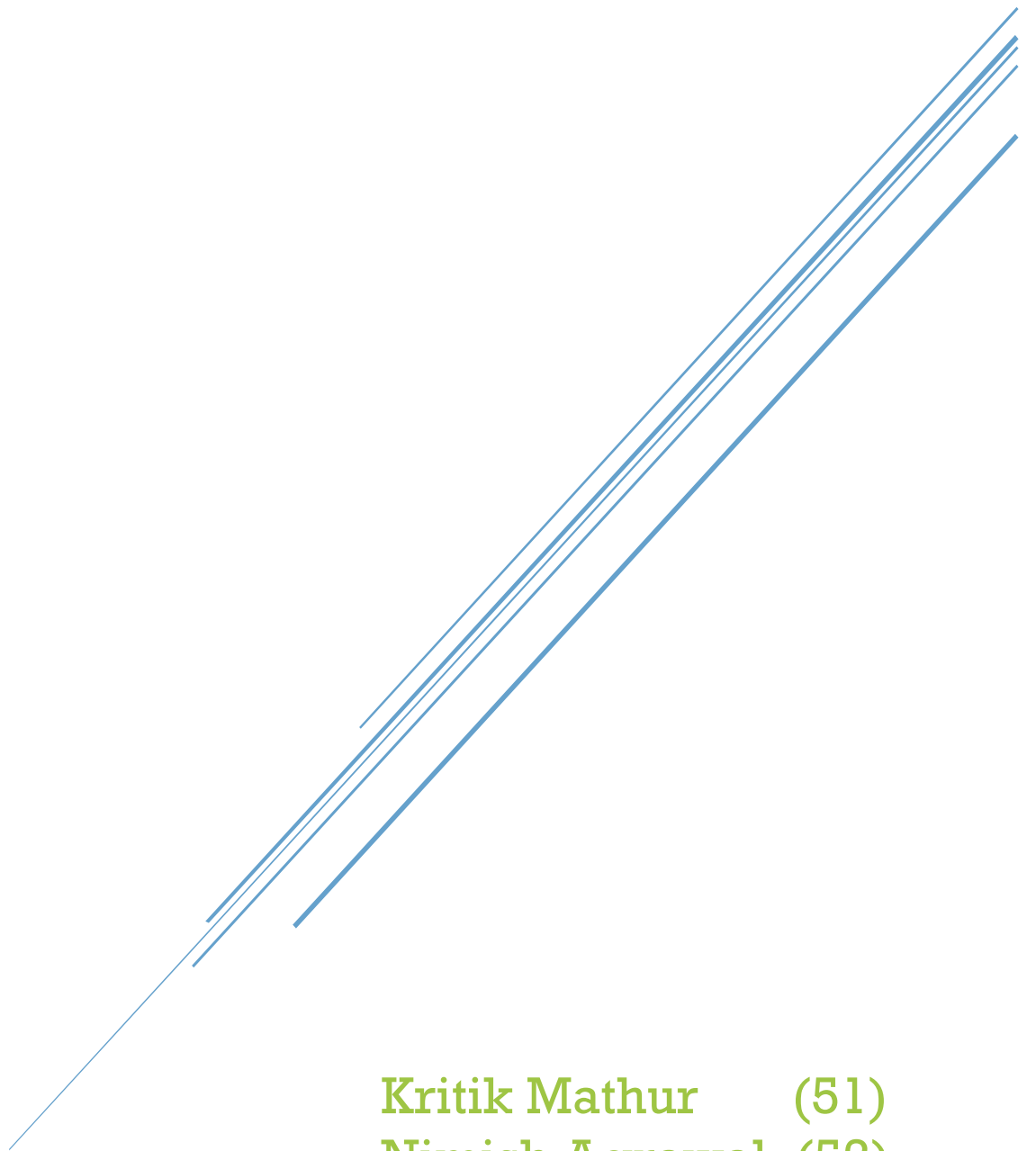# AGE OF EMPIRES

ONLINE PORTAL

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PROBLEM STATEMENT

To make a website for Age of Empires II players to come and search for players of their skill level or search for some information on Civilizations and Units of the game.

ABSTRACT

The website will be capable of finding a suitable match for a user from the database using the skill rating of the player. New players can be added or an existing player can be removed. An advanced search option with more filters is also available which can show player information based on its attributes.

The advanced search option is also available for searching specific units or civilization information.

FRONT END   **HTML CSS JavaScript**

BACK END   **MySQL PHP**

ASSUMPTIONS

- ❖ **Each Player can have only one favourite Civilization.**

- ❖ **Each Civilization can have only one Wonder.**

- ❖ **Each Civilization can have only one Unique Unit.**

- ❖ **Each Civilization can have multiple Buildings and one building can be available to multiple Civilizations.**

- ❖ **Each Civilization can have multiple Units and one Unit can be available to multiple Civilizations.**

- ❖ **Each Civilization can have multiple Researches and one Research can be available to multiple Civilizations.**

- ❖ **A Research can reside in only one Building. A Building can house multiple researches.**

Based on the above assumptions, we draw the ER Diagram.

UI DESIGN

The portal has been divided into 6 webpages.

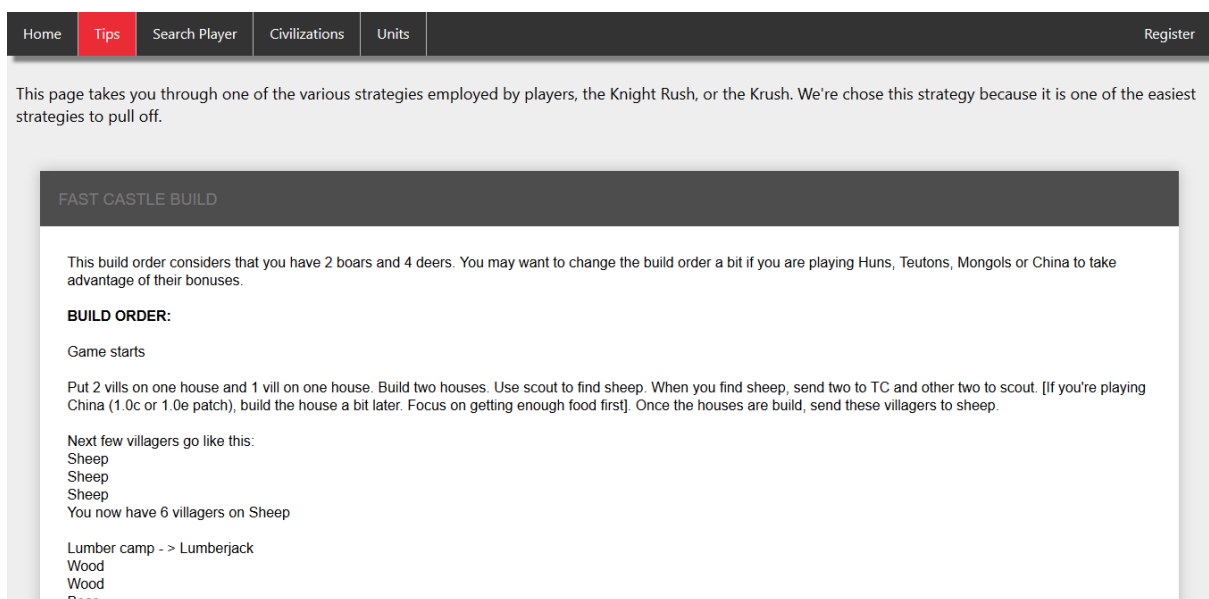## Visitors will be greeted by the home page which looks like this
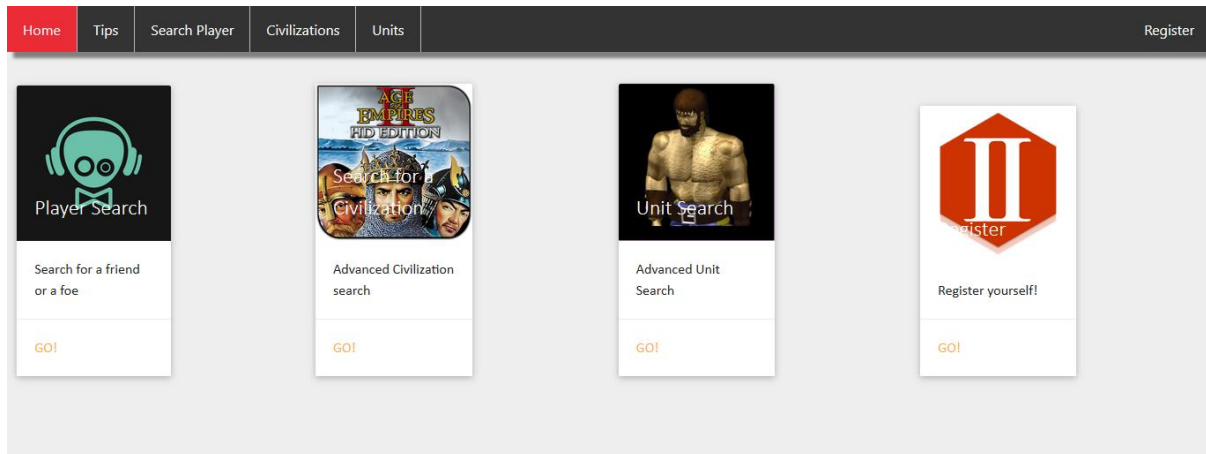
New Users can register into the portal the portal from the Register page. The Register page looks like this:

AGE OF EMPIRES – ONLINE PORTAL

Other pages included are:

- **Tips: This page has been built keeping in mind the *n00bs*, i.e. the players who are new to the game. The page provides guidelines and instructions for various ages which will help the *n00bs* to take their game to the next level.**
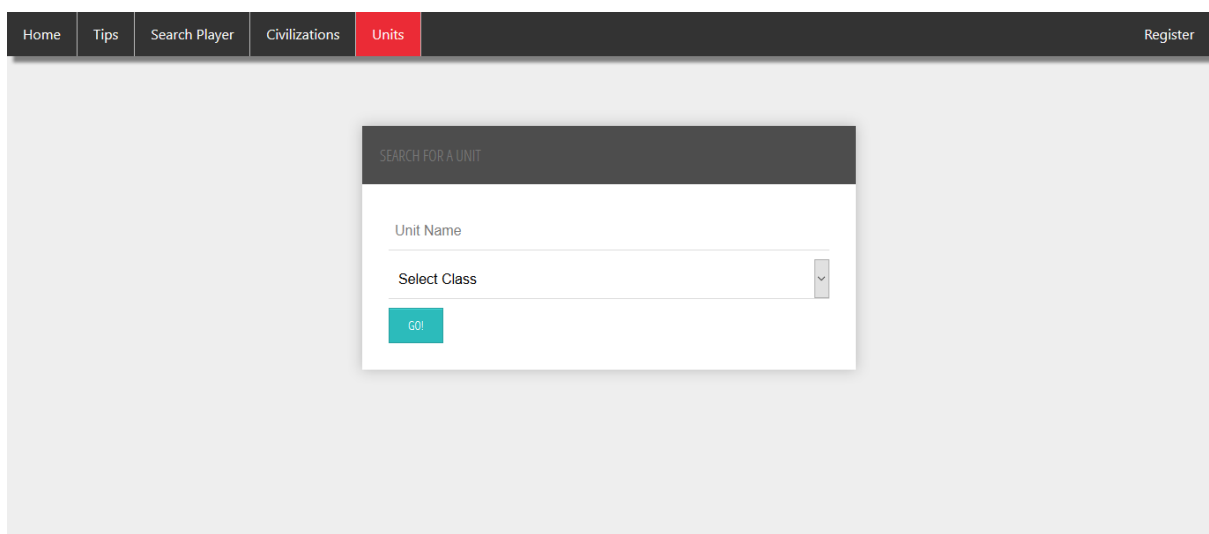
Snippet:

Home	Tips	Search Player	Civilizations	Units		Register

This page takes you through one of the various strategies employed by players, the Knight Rush, or the Krush. We're chose this strategy because it is one of the easiest strategies to pull off.

FAST CASTLE BUILD

This build order considers that you have 2 boars and 4 deers. You may want to change the build order a bit if you are playing Huns, Teutons, Mongols or China to take advantage of their bonuses.

BUILD ORDER:

Game starts

Put 2 vills on one house and 1 vill on one house. Build two houses. Use scout to find sheep. When you find sheep, send two to TC and other two to scout. [If you're playing China (1.0c or 1.0e patch), build the house a bit later. Focus on getting enough food first]. Once the houses are build, send these villagers to sheep.

Next few villagers go like this:
Sheep
Sheep
Sheep
You now have 6 villagers on Sheep

Lumber camp - > Lumberjack
Wood
Wood
Boar

- **Units: Like Civilizations, this page too is meant to provide users with in depth knowledge of the game. The Units page provides the data about each unit.**

  The data like unit's *HP, attack, speed,* etc. are all provided.

Snippet:

DCL COMMANDS

Base tables: Unit, Building, Wonder, Unique_unit

```
create table unit(
        un_name varchar(30) primary key,
        hit_points number(3, 0),
        attack number(2, 0),
        melee_armour number(2, 0),
        pierce_armour number(2, 0),
        range number(2, 0)
        );

create table wonder(
        w_name varchar(30) primary key,
        location varchar(30));

create table unique_unit(
        uq_name varchar(30) primary key,
        hit_points number(3,0),
        attack number(2, 0),
        melee_armour number(2, 0),
        pierce_armour number(2, 0),
        range number(2, 0)
        );

create table building(
        build_name varchar(30) primary key,
        hit_points number(4, 0),
        attack number(2, 0),
        range number(2, 0)
        );

create table civilization(
        civ_name varchar(30) primary key,
        unique_unit varchar(30)  references unique_unit(uq_name),
        unique_tech varchar(30),
        wonder varchar(30)  references wonder(w_name)
        );
```

```
create table research(
        res_name varchar(30) primary key,
        description varchar(60),
        building varchar(30) references building(build_name)
        );

create table player(
        p_name varchar(30),
        gamertag varchar(20) primary key,
        date_of_birth varchar(9),
        civ_name varchar(30)  references civilization(civ_name),
        played number(4, 0),
        won number(4, 0),
        rating number(4, 0)
        );

create table civ_has_buildings(
        civ_name varchar(30)  references civilization(civ_name),
        build_name varchar(30)  references building(build_name),
        primary key(civ_name, build_name)
        );

create table civ_has_research(
        civ_name varchar(30)  references civilization(civ_name),
        res_name varchar(30)  references research(res_name),
        primary key(civ_name, res_name)
        );

create table civ_has_unit(
        civ_name varchar(30)  references civilization(civ_name),
        un_name varchar(30)  references unit(un_name),
        primary key(civ_name, un_name)
        );
```

SAMPLE QUERIES

INSERT INTO CIVILIZATION VALUES('Britons', 'Longbowmen', 'Yeomen');

INSERT INTO CIVILIZATION VALUES ('Japenese', 'Samurai', 'Kataparuto');

INSERT INTO CIVILIZATION VALUES ('Mongols', 'Mangudai', 'Drill');

INSERT INTO CIVILIZATION VALUES(('Persians', War Elephant', 'Mahouts');

INSERT INTO CIVILIZATION VALUES ('Saracens', 'Mameluke', 'Zealotry');

INSERT INTO CIVILIZATION VALUES ('Teutons', 'Teutonic Knight', 'Crenellations');

INSERT INTO CIVILIZATION VALUES ('Turks', 'Jannissary', 'Artillery');

INSERT INTO CIVILIZATION VALUES('Vikings', 'Berserker', 'Berserkergang');

INSERT INTO `civ_has_buildings` (`civ_name`, `build_name`) VALUES ('Teutons', 'Bombard Tower'), ('Turks', 'Bombard Tower');

INSERT INTO `civ_has_buildings` (`civ_name`, `build_name`) VALUES ('Britons', 'Fortified Wall'), ('Byzantines', 'Fortified Wall');

INSERT INTO `civ_has_research` (`civ_name`, `res_name`) VALUES ('Byzantines', 'Atonement'), ('Chinese', 'Atonement');

INSERT INTO `civ_has_research` (`civ_name`, `res_name`) VALUES ('Saracens', 'Atonement'), ('Teutons', 'Atonement');

INSERT INTO `civ_has_research` (`civ_name`, `res_name`) VALUES ('Teutons', 'Block Printing'), ('Vikings', 'Block Printing');

INSERT INTO `civ_has_unit` (`civ_name`, `un_name`) VALUES ('Britons', 'Arbalest'), ('Byzantines', 'Arbalest');

INSERT INTO `civ_has_unit` (`civ_name`, `un_name`) VALUES ('Mongols', 'Arbalest'), ('Saracens', 'Arbalest');

SCHEMA ENTITIES

UNIT

U_NAME
HIT_POINTS
ATTACK
MELEE_ARMOUR
PIERCE_ARMOUR
RANGE

CIVILIZATION

CIV_NAME
UQ_NAME
UNIQUE_TECH
W_NAME

RESEARCH

RES_NAME
DESCRIPTION
BUILDING

PLAYER

NAME
GAMERTAG
DATE_OF_BIRTH
FAV_CIV
PLAYED
WON
RATING

UNIQUE_UNIT

UQ_NAME
HIT_POINTS
ATTACK
MELEE_ARMOUR
PIERCE_ARMOUR
RANGE

CIV_BUILDIN

CIV_NAME
BUILD_NAME

WONDER

W_NAME
LOCATION

BUILDING

BUILD_NAME
HIT_POINTS
ATTACK
RANGE

CIV_UNITS

CIV_NAME
UN_NAME

CIV_RESEARC

CIV_NAME
RES_NAME

CODE SNIPPETS

The following snippet is a PHP code which handles the registration process for new users.

```php
<?php

error_reporting(0);

if(isset($_POST['register']))
{
 $username="root";
 $password="tdkdetective";
 $database="aoe2db";

 $conn = mysql_connect('localhost',$username,$password);

 @mysql_select_db($database) or die( "Unable to select database");

 $pName=isset($_POST['pName']) ? $_POST['pName'] : '';
 $gTag=isset($_POST['gTag']) ? $_POST['gTag'] : '';
 $civName=isset($_POST['civName']) ? $_POST['civName'] : '';
 $rating=isset($_POST['rating']) ? intval($_POST['rating']) : '';
 $dob=isset($_POST['dob']) ? $_POST['dob'] : '';
 $played=isset($_POST['played']) ? intval($_POST['played']) : '';
 $won=isset($_POST['won']) ? intval($_POST['won']) : '';

 $query = "INSERT INTO player (p_name, gamertag, date_of_birth,
civ_name, played, won, rating) VALUES('$pName','$gTag',
 '$dob','$civName','$played', '$won', '$rating')";

 echo "<script type='text/javascript'>window.alert('You are now a Wololo
Warrior!')</script>";
 $result = mysql_query($query, $conn) or die('Error'. mysql_error());
}

?>
```

The following snippet is a part of the PHP code which helps the user to search for a unit on the basis of name and other fields.

```php
$conn = mysql_connect('localhost',$username,$password);

   @mysql_select_db($database) or die( "Unable to select database");

   if($_POST['uName'] != '')
   {
    $name = $_POST['uName'];

    $query = "SELECT * from unit where un_name = '$name'";
    $results = mysql_query($query, $conn) or die("Error:".mysql_error());


    if(mysql_num_rows($results) == 0)
    echo "No such unit found";

    else
    {
      echo "<div class='CSSTableGenerator'><table>
          <tr>
             <th>Unit Name<th>Hit Points<th>Attack<th>Melee
Armour<th>Pierce Armour<th>Range<th>Production Building
          </tr>";

     while ($row = mysql_fetch_array($results))
     {
      echo "<tr><td>". $row['un_name']. "<td>". $row['hit_points']. "<td>".
$row['attack']. "<td>". $row['melee_armour']. "<td>". $row['pierce_armour'].
"<td>". $row['attack_range']. "<td>". $row['from_building']. "</tr>";
     }
     echo "</table></div>";

   }
  }
   else
   {
```

The following snippet is a CSS code which beautifies the Tips page.

```css
#top
{
        font-size: 18px;
        padding-left: 10px;
        padding-right: 10px;
        font-family: gothic;
}

#tip
{
        position: relative;
        margin-top: 6px;
        margin-left: 15px;
        margin-right: 15px;
        text-align: left;
        padding: 10px;
        background-color: #d3d3d3;
        box-shadow: 3px 3px 2px grey;
}

#topic
{
        font-size: 28px;
}

#sub
{
        position: relative;
        font-size: 14px;
        font-family: gothic;
        margin-top: 5px;
}
```

The following is a snippet from the header of the HTML file for our Home Page.

```
<!DOCTYPE html>

<html>

<head>

        <title>AoX-Home Page</title>
        <link href="../static/style.css" rel="stylesheet"/>

 <link href='http://fonts.googleapis.com/css?family=
Open+Sans+Condensed:300' rel='stylesheet' type='text/css'>

 <!-- Compiled and minified CSS -->
 <link rel="stylesheet" href=
"https://cdnjs.cloudflare.com/ajax/libs/materialize/0.97.6/css/materializ
e.min.css">

 <!-- Compiled and minified JavaScript -->
 <script src=
"https://cdnjs.cloudflare.com/ajax/libs/materialize/0.97.6/js/materialize.
min.js"></script>

</head>

<body>
```

REFERENCES

Almost all of the extra help we received was from the web. The following websites/links, apart from the curriculum, were the concrete reason this project was made possible:

http://www.tutorialspoint.com/php/

http://php.net/manual/en/book.mysql.php

http://www.w3schools.com/php/php_mysql_intro.asp

https://www.youtube.com/channel/TeachMeComputer

https://thenewboston.com/

http://stackoverflow.com/questions/tagged/php

http://www.mysqltutorial.org/

http://www.php-mysql-tutorial.com/

http://aok.heavengames.com/