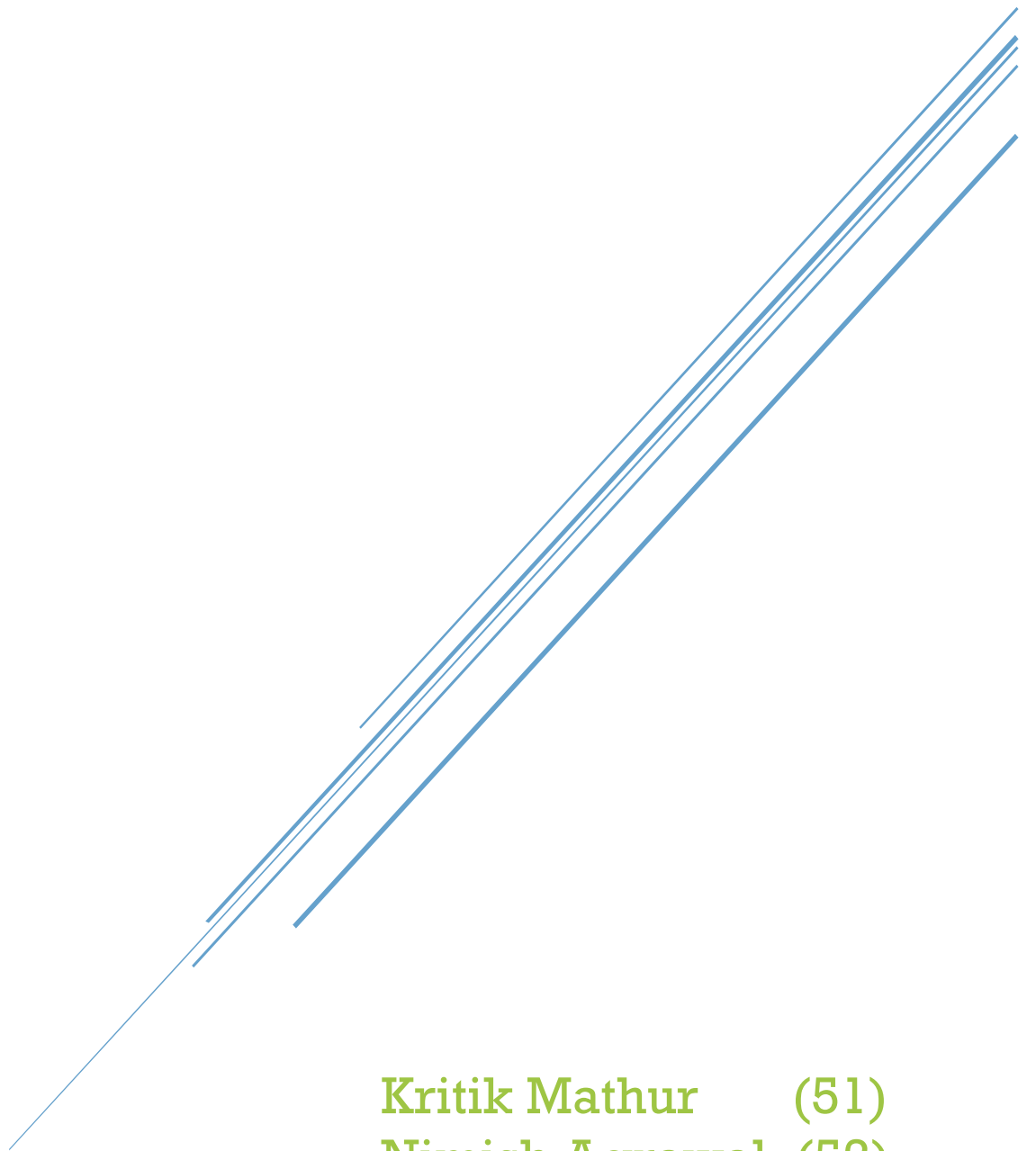


AGE OF EMPIRES

ONLINE PORTAL



Kritik Mathur (51)

Nimish Agrawal (52)

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

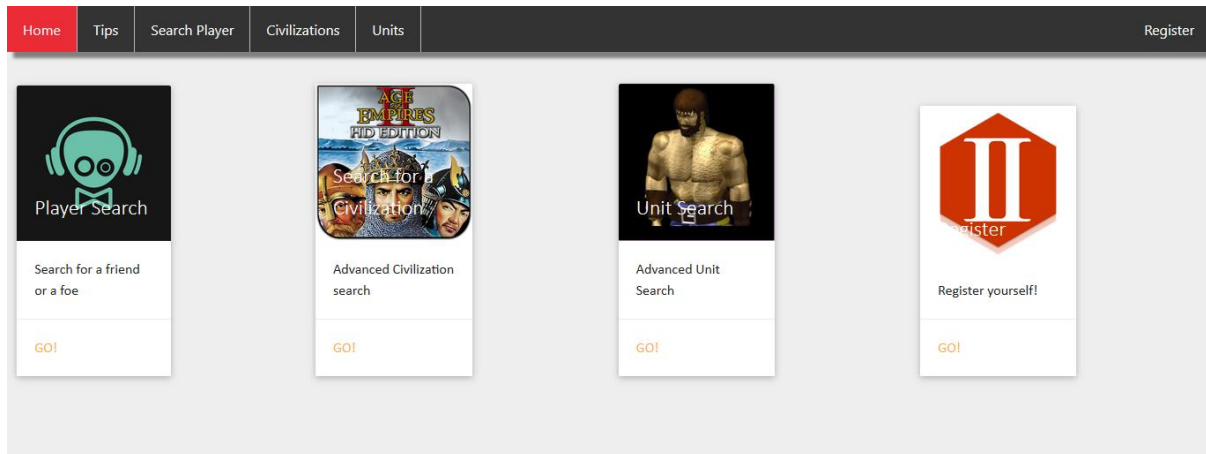
- ❖ **Each Player can have only one favourite Civilization.**
- ❖ **Each Civilization can have only one Wonder.**
- ❖ **Each Civilization can have only one Unique Unit.**
- ❖ **Each Civilization can have multiple Buildings and one building can be available to multiple Civilizations.**
- ❖ **Each Civilization 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



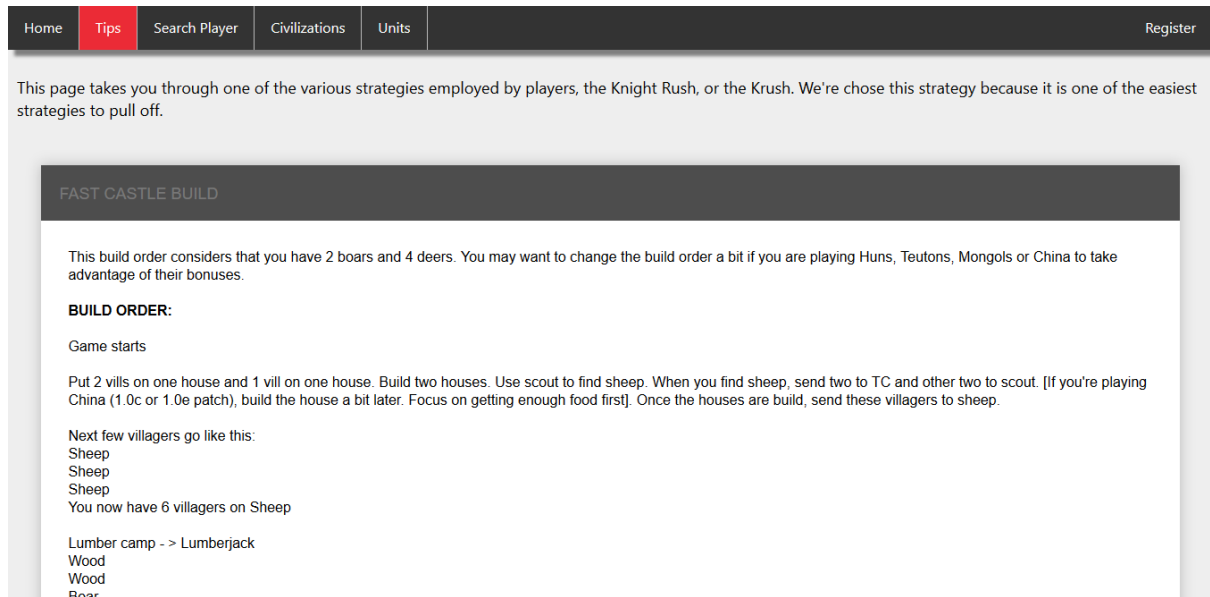
New Users can register into the portal the portal from the Register page. The Register page looks like this:

The screenshot shows the Register page of the Age of Empires Online Portal. At the top is a dark navigation bar with links: Home, Tips, Search Player, Civilizations, Units, and Register (highlighted in red). Below the navigation bar is a large white registration form with a dark header that says 'FILL THIS FORM TO REGISTER'. The form contains the following fields: 'Player Name' (text input), 'Gamer Tag' (text input), 'Select Favourite Civilization' (dropdown menu), 'Rating' (text input with a help icon), 'Date of Birth(DD-MM-YYYY)' (text input), 'Number of matches played' (text input with a help icon), and 'Number of matches won' (text input with a help icon). At the bottom of the form is a red 'REGISTER!' button.

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:



- **Search Player:** This page is helps the User search for other users in the existing database. The search functionality gives the user freedom to search another player on basis of their ratings, favourite civilizations, units, their date of birth, etc.

The aim is to provide the players the best possible playing experience against players of similar skill.

Snippet:

Home Tips **Search Player** Civilizations Units Register

Our awesome search tool lets you search for a friend or a foe in the Age of Empires 2 Community. Give it a try!

ENTER WHAT YOU KNOW

Gamer Tag

Name

Rating

Date of Birth(DD-MM-YYYY)

SEARCH PLAYER

- **Civilizations:** This is an informative page which briefs the various civilizations available in the game.

The *civilization units, technologies, buildings, etc.* are all listed in a very user friendly fashion.

Snippet:

Home Tips Search Player **Civilizations** Units Register

LOOK FOR A CIVILIZATION

Civilization

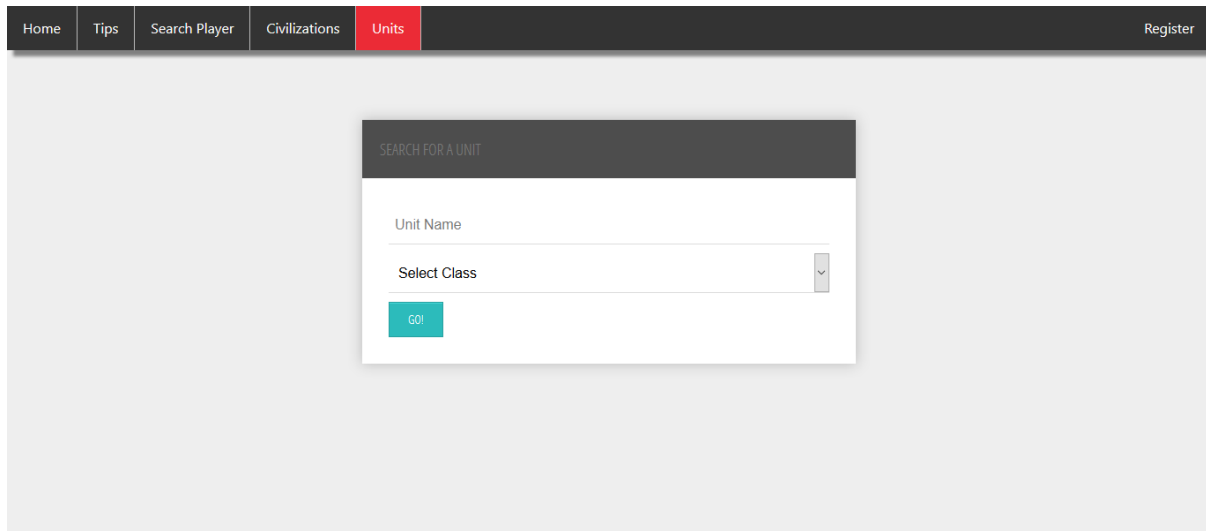
that has

GO!

- **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),
```

AGE OF EMPIRES – ONLINE PORTAL

```
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

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.

```
$conn = mysql_connect('localhost',$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.

```
#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/>