SPACES DEGREE COLLEGE, PAYAKARAOPETA

DECLARATION

I here by declare that this project work was carried out by us under the guidance and Supervision of **Sri A.R.V.L.NARAYANA M.Tech (CS), Department of Computer Science**.

This project work is submitted to SPACES Degree College, Department of Computer Science in partial fulfillment for the requirement of Degree in Bachelor of Computer Science.

I declare that this work has not been submitted anywhere else for the award of any other degree.

Date: SIGNATURE OF STUDENT

ACKNOWLEDGEMENT

First of all we would like to express our heartful thanks to **Sri CH. VIJAY PRAKASH**, Joint-Secretary, Sri Prakash Educational Institutions for providing this opportunity to complete this project work.

We thank our honorable Principal **Dr. K.Veerraju,** M.Sc, B.Ed, Ph.D for his inspiration. And we thank **Sri A.R.V.L.Narayana,** M.Tech (CS), and Department of Computer Science for his correct guidance and advice.

We also thank our department staff

- Sri. SMVS.Kumar M.SC(CS), Lecturer in Computer Science
- Sri. P.S.Gajapathi Raju, M.Tech (CS), Lecturer in Computer Science
- Miss. M.R.M.Harisitha, MCA, Lecturer in Computer Science

We are very happy to thank our computer department for giving a well equipped lab for developing this project work.

We extent our thanks and gratitude to our parents, Friends and those who helped us directly and indirectly for the successful completion of this project work.

(……..)

ABSTRACT

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In today's competitive world choosing right career path or academies is a big challenge. Educational and Career Guidance is not as simple task as it sounds and it is a complicated thing, which depends upon many factors and aspects. These days Career counselors are rarely available and they charge high fees. So, we need an effective system which can reduce this issue and will able to neutralize the complexity of such problems. Our application OCM (Online Career Mentor) specially for UG students is an approach to resolve such problems and provide a better guidance to the students for building their academics and have a right career to get success in the life. This small application can make a big difference if it is used and followed in a structured manner.

INDEX

INTRODUCTION

1. INTRODUCTION

INTRODUCTION TO ONLINE CAREER MENTOR:

Online Career Mentor provides information about various courses that a UG student can opt after the competition of his/her Under Graduation. It has four modules like Employment, Higher studies, Government and Defence. The students can access the system and refers the information.

PROBLEM STATEMENT:

This project focuses on getting access to the career information from WWW. It also simplifies for the students in choosing right career.

The Details of the courses have to search and find in particular websites. It takes a lot of time to find certain courses.

The solution for this problem is to design Online Career Mentor for the Students to speed up and make it easy to find out.

PROJECT OBJECTIVE :

- This project main aim was to computerized the searching of career opportunities.
- It is used to automate the process by viewing the career information

PROJECT SCOPE: The scope of this project is as follows:

1. Students are easy to find out the different course/employment details in a single website
2. To reduce the time on searching in various websites.
3. To get all the details of willing courses/employment.

EXISTING SYSTEM:

In present system the students need to access different websites for choosing various career options.

PROPOSED SYSTEM:

We aim to develop a web application that provides easy and quick access to different courses and employment details, and all the related websites are stored at one application that reduces the access type.

- **Abbreviations:** Following abbreviations are used in the entire specification document.
    - **OCM :** Online Career Mentor
    - **BSC :** Bachelor of Science
    - **MCA :** Master's in Computer Applications
    - **MBA :** Master of Business Administration
    - **SI :** Sub-Inspector in Police

Requirement Specification

2. Requirement Specification

Feasibility study: feasibility study is the process of determining whether the development of proposed system is possible or not. It checks whether the developed system is useful to the students or not. It explores technical aspects of the project and product such as usability, maintainability and productivity and integration ability. The costs and benefits are estimated with greater accuracy at this stage. The result of feasibility study is a formal proposal describing the nature and scope of proposed system. During feasibility study the analyst checks various types of feasibility. They are

- Operational feasibility
- Technical feasibility
- Economical feasibility
- Managerial feasibility
- Time feasibility

Operational feasibility

Operational feasibility is the measure of how well the proposed system solves the problems. It assesses the

- Business environment
- Development schedule
- Delivery date etc.

Technical feasibility

It determines whether the technical resources are available to develop a new system.

- It measure whether the existing hardware and software support the proposed system or not.
- It checks whether the available technology is within the given budget or not.

Economic feasibility

- It determines the financial resources of the project.
- It checks whether the proposed system is developed within the project budget or not.
- It measures the costs basing on cost benefit analysis that determines the cost and benefits of expected system.

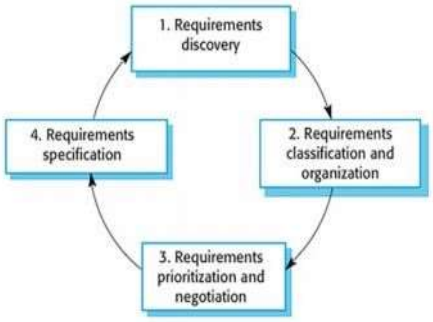
Feasibility Report

The output of the feasibility study is nature and scope of the project.

Scope: The final web page will help the students to find out the particular Courses and Employment details.

Requirement Elicitation andAnalysis

Requirement Elicitation means extracting or gathering or discovering requirements. So it is also called requirement discovery. It collects the requirements from stakeholders. During this process it gathers information about application domain, services that the system should providedoperational constraints.



Requirement Analysis the process of studying user needs to arrive at a definition of a system, hardware, or software requirements. The process of studying and refining system, hardware, or software requirements".

1. Requirement analysis is an iterative process conducted jointly by analyst and customer to meet the customer needs.

2. Requirement's analysis is a software engineering task that bridges the gap between system level requirements engineering and softwaredesign.
3. Analysis provides the specifications and information required bydesigner.
4. When customer is not sure of the requirements then the analyst uses the concept of prototype.

KEY NOTES :

This system can be developed using the html as front end and CSS as style

HTML FEATURES:

1. HTML stands for Hyper Text Mark Up Language
2. HTML is a primary scripting language to develop the web pages.
3. HTML documents may include multimedia objects like audio ,video , applets…..etc.
4. HTML is platform independent
5. HTML is not a case sensitive language

CSSFEATURES :

1. CSS stands for cascading style sheet
2. CSS is used to specify the style and layout of the text.
3. Setting images as background for the elements
4. Using CSS inheritance, we can style elements on a page
5. Centering a page using < div > element
6. Styling multiple selectors with a single CSS declaration

SYSTEM REQUIREMENTS SPECIFICATIONS:

NON-FUNCTIONAL REQUIREMENTS:

HARDWARE REQUIREMENTS: The hard ware requirements of the project are as follows:

KEY BOARD: KEYBOARD WITH 110 KEYS
PROCESSOR: OCTO CORE
MONITOR: COLOR MONITOR (CRT/LED)
OS: WINDOWS 10
HARDDISK: CAPACITY 40 GB
RAM: 4GB

SOFTWARE REQUIREMENTS :

Programming Language: HTML 4.01, CSS

Browser: Internet Explorer 11.0 , Google Chrome , Mozilla firefox.

Operating System : Windows 7 , Windows 8 (or) Windows 10
Mac OS10.8 , 10.9 , 10.10, 10.11

FUNCTIONAL REQUIREMENTS: General Description of output details.

INTERFACE REQUIREMENTS :

- **Home:** It is the home page of Onlline Career Mentor website.
- **Menu:** It contains a list of options like Employment, Higher studies, Government, Defence and it's further details.
- **About us:** It contains details of the project team members.

Outputs: It contains the details of all the courses and employment details.

DESIGN

3. DESIGN

SOFTWARE DESIGN: Software Design is an iterative process through which requirements are translated into a blue print for the software. There are different design models. They are

1. Data design model
2. Architecture design model
3. Interface design model
4. Component design model

System design: The purpose of the system design phase was to develop a clear blueprint that would satisfy all documented requirement for the system. The overall system design objective was to provide an efficient, modular design that will reduce the system's complexity, facilitate change and result in an easy implementation. This blueprint provided interface design models like data design, architectural design that are consistent, user friendly and will provide straightforward transition through the various system functions.

Architectural Design: The architecture design begins with representing the system in context i.e., defining the external entities. Once all external software interfaces have been described, the designer specifies the structure of the system by designing and component.

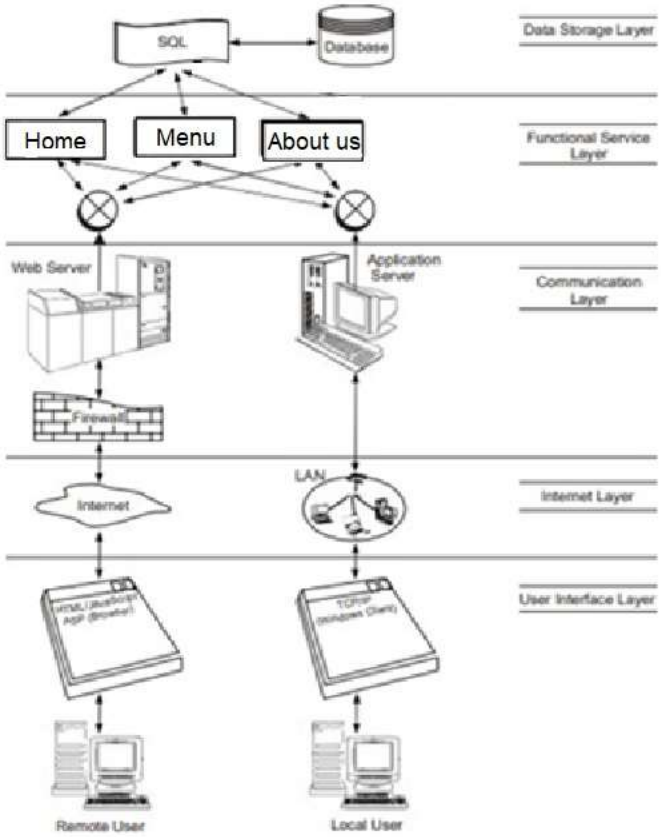
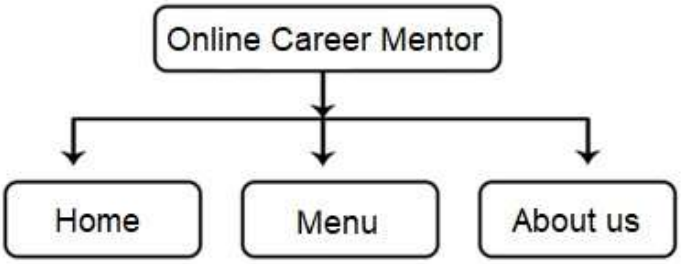


Figure 3.1: System Architecture Design

SYSTEM ARCHITECTURAL DESIGN: The Online Career Mentor for Career guidance is a system which has major components such as Employment details, Higher studies details, Government job details and Defence jobs detail. The student can only view the details of the universities.

DATA DESIGN: Data design is the first of the design activities, which leads to better program structure,



Effective modularity and reduced complexity, data designed is developed by transforming the data dictionary and entity relationship diagrams (identified during the requirements phase) in to data structures that are required to implement the software. The data design process includes identifying the data, defining specific data types and storage mechanisms, and ensuring data integrity by using business rules and other run time enforcement mechanisms.

Entity Relationship (ER) Diagram for online universities portal information:

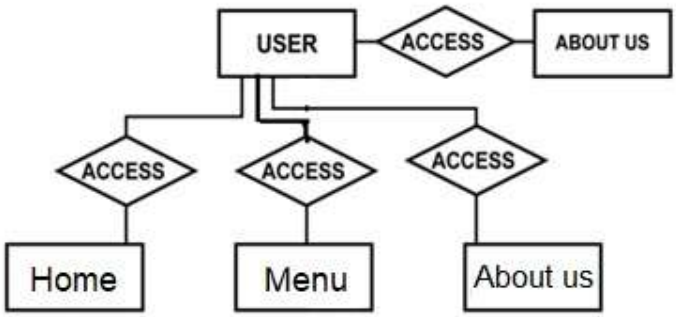


Figure: Data Design diagram (ER diagram)

DATA FLOW DIAGRAMS

4. Data Flow Diagrams

Procedural design: This is also called as functional flow design or component level design. This design represents flow of the concept through DFD's.

DFD: A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

Types of DFD: Data Flow Diagrams are either Logical or Physical.

1. **Logical DFD:** This type of DFD concentrates on the system process, and flow of data in the system. For example in a Banking software system, how data is moved between different entities.
2. **Physical DFD:** This type of DFD shows how the data flow is actually implemented in the system. It is more specific and close to the implementation.

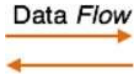
Components ofDFDs:

1. **Entities** - Entities are source and destination of information data. Entities are represented by a rectangles with their respective names.

2. **Process** - Activities and action taken on the data are represented by Circle or Round-edged rectangles.

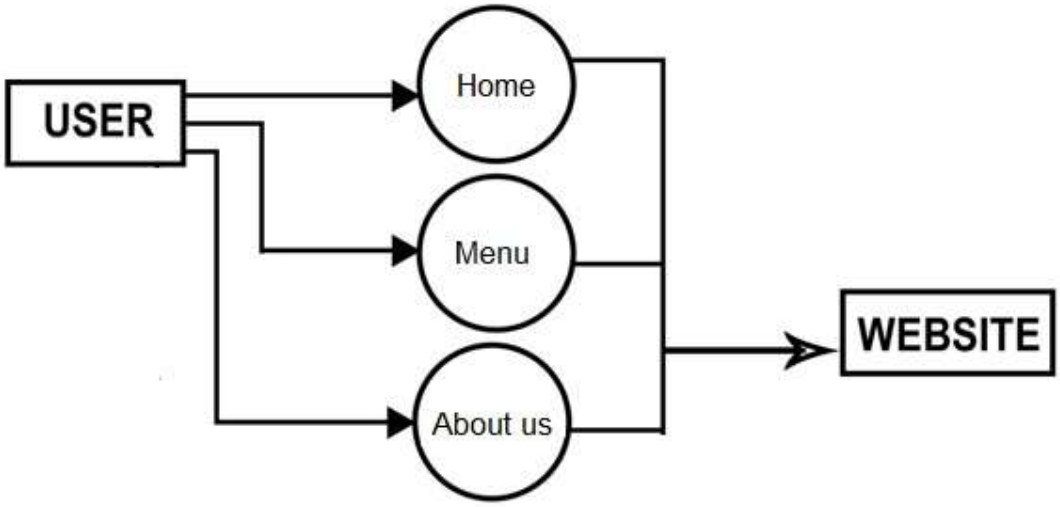
3. **Data Storage** - There are two variants of data storage - it can either be represented as a rectangle with absence of both smaller sides or as an open-sided rectangle with only one side missing.

4. **Data Flow** - Movement of data is shown by pointed arrows. Data movement is shown from the base of arrow as its source towards head of the arrow as destination.



The data flow diagrams of various levels are shown as follows:

DFD for overview of Online Career Mentor information:



Testing

5. Testing

Testing: Good quality software is expected to meet user's expectation and behave according to its specifications. To make sure that the software is working according to the expectations, we need to do testing of the software. Generally a product can be tested in two ways:

White box testing: It is a software testing method in which the internal structure or design or implementation of the item being tested is known to the tester.

Black box testing: It is also known as Behavioral Testing, is a software testing method in which the internal structure/design/implementation of the item being tested is not known to the tester. These tests can be functional or non-functional, though usually functional.

Test plan: In general the testing activity can be divided into 3 levels given as below.

Unit testing: Unit testing is a level of software testing where individual units or components of software are tested. A unit is the smallest testable part of any software. It usually has one or a few inputs and usually a single output. In procedural programming, a unit may be an individual program, function, procedure ,etc.

Integration testing: Integration testing is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. Test drivers and test stubs are used to assist in Integration Testing. They are different types of integration testing. They are Top-down approach, Bottom-up approach, mixed mode approach, Big bang approach, Regression approach, Smoke approach.

System testing: System testing is a black box testing technique performed to evaluate the complete system the system's compliance against specified requirements. In System testing, the functionalities of the system are tested from an end-to-end perspective.

Test cases:

1. Verify that the menu bar is visible or not.
2. Verify that the drop down menu is working or not.
3. Verify that the hyperlink is working or not.
4. Verify that the university images visible or not

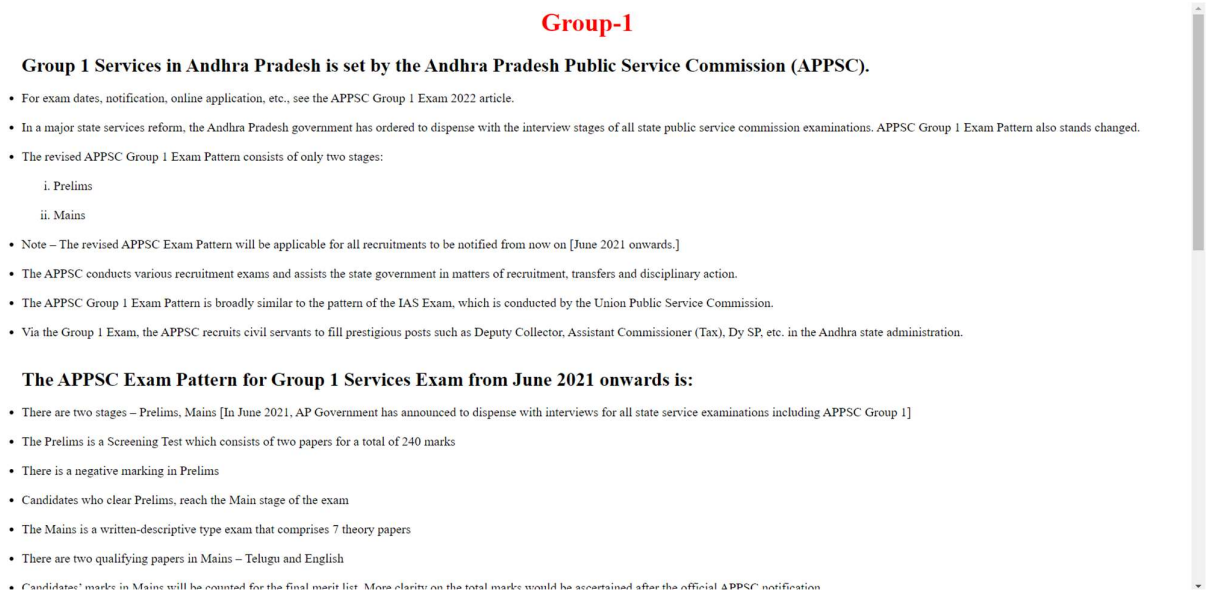
Output Screens
&
Sample Code

6. Output Screens & Sample Code

6.1 Output Screens:

Fig :Main page

Fig: page-1



Group-1

Group 1 Services in Andhra Pradesh is set by the Andhra Pradesh Public Service Commission (APPSC).

- For exam dates, notification, online application, etc., see the APPSC Group 1 Exam 2022 article.
- In a major state services reform, the Andhra Pradesh government has ordered to dispense with the interview stages of all state public service commission examinations. APPSC Group 1 Exam Pattern also stands changed.
- The revised APPSC Group 1 Exam Pattern consists of only two stages:
  - i. Prelims
  - ii. Mains
- Note – The revised APPSC Exam Pattern will be applicable for all recruitments to be notified from now on [June 2021 onwards.]
- The APPSC conducts various recruitment exams and assists the state government in matters of recruitment, transfers and disciplinary action.
- The APPSC Group 1 Exam Pattern is broadly similar to the pattern of the IAS Exam, which is conducted by the Union Public Service Commission.
- Via the Group 1 Exam, the APPSC recruits civil servants to fill prestigious posts such as Deputy Collector, Assistant Commissioner (Tax), Dy SP, etc. in the Andhra state administration.

The APPSC Exam Pattern for Group 1 Services Exam from June 2021 onwards is:

- There are two stages – Prelims, Mains [In June 2021, AP Government has announced to dispense with interviews for all state service examinations including APPSC Group 1]
- The Prelims is a Screening Test which consists of two papers for a total of 240 marks
- There is a negative marking in Prelims
- Candidates who clear Prelims, reach the Main stage of the exam
- The Mains is a written-descriptive type exam that comprises 7 theory papers
- There are two qualifying papers in Mains – Telugu and English
- Candidates' marks in Mains will be counted for the final merit list. More clarity on the total marks would be ascertained after the official APPSC notification

Fig: page-2

6.2 Sample Code:

Main page program:

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
  </head>
  <body>
    <div class="menu-bar">
    <ul>
    <li class="active"><a href="#"><i class="fa fa-home"></i>Home</a></li>
    <li><a href="#"><i class="fa fa-bars"></i>Menu</a>
      <div class="sub-menu-1">
        <ul>
          <li class="hover-me"><a href="#">Employment</a><i class="fa fa-angle-right"></i>
            <div class="sub-menu-2">
             <ul>
               <li><a href="ComputerEmp.html">Computers</a>
               </li>
               <li><a href="MathsEmp.HTML">Maths</a></li>
               <li><a href="Phsicsemp.html">Physics</a></li>
               <li><a href="chemistryemp.html">Chemistry</a></li>
               <li><a href="botonyemp.html">Botony</a></li>
               <li><a href="zoologyemp.html">Zoology</a></li>
             </ul>
            </div>
          </li>
```

```
<li class="hover-me"><a href="#">Higher studies</a><i class="fa fa-angle-right"></i>
   <div class="sub-menu-2">
    <ul>
      <li class="hover-you"><a href="#">Computers</a><i class="fa fa-angle-right"></i>
         <div class="sub-menu-3">
    <ul>
      <li><a href="MBA.html">MBA</a></li>
      <li><a href="MCA.html">MCA</a></li>
    </ul>
  </div>
      </li>
      <li><a href="MathsHstd.html">Maths</a></li>
      <li><a href="PhysicsHstd.html">Physics</a></li>
      <li><a href="ChemistryHstd.html">Chemistry</a></li>
      <li><a href="BotonyHstd.html">Botony</a></li>
      <li><a href="zoologyhs.html">Zoology</a></li>
    </ul>
  </div>
</li>
<li class="hover-me"><a href="#">Government</a><i class="fa fa-angle-right"></i>
   <div class="sub-menu-2">
    <ul>
      <li class="hover-you"><a href="#">Groups</a><i class="fa fa-angle-right"></i>
         <div class="sub-menu-3">
    <ul>
      <li><a href="Group%201.html">Group-1</a></li>
      <li><a href="Group-2.html">Group-2</a></li>
      <li><a href="group3.html">Group-3</a></li>
      <li><a href="group4.html">Group-4</a></li>
    </ul>
  </div>
      </li>
      <li><a href="Banking.html">Banking</a></li>
      <li><a href="Railway.html">Railway</a></li>
      <li class="hover-you"><a href="#">Police</a><i class="fa fa-angle-right"></i>
         <div class="sub-menu-3">
    <ul>
      <li><a href="SI.html">SI</a></li>
      <li><a href="Constable.html">Constable</a></li>
    </ul>
  </div>
      </li>
    </ul>
  </div>
</li>
<li class="hover-me"><a href="#">Defence</a><i class="fa fa-angle-right"></i>
   <div class="sub-menu-2">
    <ul>
      <li><a href="Indian%20Army.html">Indian Army</a></li>
      <li><a href="Indian%20Navy.html">Indian Navy</a></li>
      <li><a href="Indian%20Air%20force.html">Indian Air force</a></li>
    </ul>
  </div>
</li>
```

```
            </ul>
          </div>
        </li>
        <li><a href="Aboutus.html"><i class="fa fa-user"></i>About us</a></li>
        </ul>
          <label class="logo">Your Career Our Mission</label>
        </div>
    </body>
</html>
```

/* Style code */

```
*{
   padding: 0;
   margin: 0;
   box-sizing: border-box;
}
body{
   background-image: url(back\ copy.jpg);
   background-size: cover;
   background-position: center;
   font-family: sans-serif;
}
.menu-bar
{
   background: darkred;
   text-align: left;
}
.menu-bar ul
{
   display: inline-flex;
   list-style: none;
   color: #fff;
}
.menu-bar ul li
{
   width: 120px;
   margin: 10px;
   padding: 10px;
}
.menu-bar ul li a
{
   text-decoration: none;
   color: white;
}
.active, .menu-bar ul li:hover
{
   background: red;
   border-radius: 3px;
}
```

```
.menu-bar .fa
{
   margin-right: 8px;
}
.sub-menu-1
{
   display: none;
}
.menu-bar ul li:hover .sub-menu-1
{
   display: block;
   position: absolute;
   background: darkred;
   margin-top: 15px;
   margin-left: -15px;
}
.menu-bar ul li:hover .sub-menu-1 ul
{
   display: block;
   margin: 10px;
}
.menu-bar ul li:hover .sub-menu-1 ul li
{
   width: 150px;
   padding: 10px;
   border-bottom: 1px dotted white;
   background: transparent;
   border-radius: 0;
   text-align: left;
}
.menu-bar ul li:hover .sub-menu-1 ul li:last-child
{
   border-bottom: none;
}
.menu-bar ul li:hover .sub-menu-1 ul li a:hover
{
   color: red;
}
.fa-angle-right
{
   float: right;
}
.sub-menu-2
{
   display: none;
}
.hover-me:hover .sub-menu-2
{
   position: absolute;
   display: block;
   margin-top: -40px;
   margin-left: 140px;
   background: black;
}
```

```
.menu-bar ul li:hover .sub-menu-2 ul li a:hover
{
   color: yellow;
}

label.logo{
   color: white;
   font-size: 30px;
   line-height: 50px;
   padding: 0 380px;
   font-weight: bold;
   vertical-align: middle;
}
.sub-menu-3
{
   display: none;
}
.hover-you:hover .sub-menu-3
{
   position: absolute;
   display: block;
   margin-top: -40px;
   margin-left: 140px;
   background: gray;
}
```

/*Page-2 code*/

```
<html>
   <head>
   </head>
   <body>
      <p>
         <center><font color="Red"><h1><b>Group-1</b></h1></font></center>
         <ul>
            <font size=5px><b>Group 1 Services in Andhra Pradesh is set by the Andhra Pradesh Public Service Commission
(APPSC).</b></font>
            <br>
            <br>
<li>For exam dates, notification, online application, etc., see the APPSC Group 1 Exam 2022 article.</li><br>

<li>In a major state services reform, the Andhra Pradesh government has ordered to dispense with the interview stages of
all state public service commission examinations. APPSC Group 1 Exam Pattern also stands changed.</li><br>
<li>The revised APPSC Group 1 Exam Pattern consists of only two stages:</li><br>
```

<ol type="i">
Prelims
Mains

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Candidates' marks in Mains will be counted for the final merit list. More clarity on the total marks would be ascertained after the official APPSC notification.

</p>
      <h3>APPSC Group 1 Exam Pattern:</h3>
      <h4>Stage 1: Prelims Exam Pattern</h4>

<table border="5" bgcolor="lightblue" width="80%">
<tr>
<th>Paper-I General studies</th>
<th>Paper-II General aptitude</th>
</tr>
<tr>
<td>Number of questions: 120 questions</td>
<td>Number of questions: 120 questions</td>
</tr>
<tr>
<td>Nature of questions: Objective Type (MCQ)</td>
<td>Nature of questions: Objective Type (MCQ)</td>
</tr>
<tr>
<td>Duration: 120 minutes</td>
<td>Duration: 120 minutes</td>
</tr>

<tr>
<td>Maximum Marks: 120 marks</td>

<td>Maximum Marks: 120 marks</td>
</tr>
<tr>
<td>Negative Marking: 1/3rd of the marks prescribed for the question</td>
<td>Negative Marking: 1/3rd of the marks prescribed for the question</td>
</tr>
<tr>
<td>
Syllabus:

History and Culture – 30 marks
Constitution, Social Justice and International Relations – 30 marks
Indian Economy and Andhra Pradesh Economy and Planning – 30 marks
Geography – 30 marks
</td>
<td>Syllabus:

General Mental Ability and Administrative and Psychological Abilities – 60 marks
Science and Technology – 30 marks
Current Events of Regional, National and International importance – 30 marks
</td>
</tr>
</table>
      <h4>Stage 2: Mains Exam Pattern</h4>
<table border="5" bgcolor="lightblue" width="80%">
<tr>
<td>Number of Papers</td>
<td>Seven (2 qualifying papers + 5 papers counted for merit ranking)</td>
</tr>
<tr>
<td>Duration of Exam</td>
<td>180 minutes each</td>
</tr>
<tr>
<td>Nature of Questions</td>
<td>Essay-descriptive type</td>
</tr>
<tr>
<td>Maximum Marks</td>
<td>150 marks each</td>
</tr>
<tr>
<td>Qualifying Papers</td>
<td>Paper in Telugu
Paper in English
Note: Minimum qualifying marks are – 40 % (OC), 35%(BC), 30% (SC/ST/PH)</td>
</tr>
<tr>
<td>Papers counted for Merit Ranking</td>
<td>
Paper 1 – Essay – on contemporary themes and issues of regional, national and international importance

Paper 2 – History, Culture and Geography of India and Andhra Pradesh
Paper 3 – Constitution, Polity, Governance, Law and Ethics
Paper 4 – Economy and Development of India and Andhra Pradesh
Paper 5 – Science, Technology and Environmental Issues

Note: The candidates can answer the above papers in English/Telugu/Urdu depending on the preference stated in the online application.

All merit ranking papers must be written in the same language.</td>
</tr>
</table>
<P>
The candidates who clear the Mains stage are then called for an interview with the APPSC board. Usually, candidates are called in the ratio of 2:1 with respect to the number of vacancies.

The final merit list is prepared based on:

Candidates' marks in Mains: out of 750 marks (150 * 5)
Interview: 75 marks [The interview has been done away with for all upcoming recruitments. APPSC Group 1 2019 is the last examination to have Interview as the final stage.]
Thus, out of a total of 825 marks. [Total Marks Tally to change after removal of interview stage]
</P>
Group-1 eligibility
Group-1 study material
</body>
</html>

Conclusion

7. Conclusion

In this way I developed this project which is helpful for a UG student to get an idea about his/her future. So from this a UG student can get the information about the opportunities after the completion of their graduation. Students can access the information within few seconds, clarity in higher education; skill based jobs, other courses and also government and defence jobs. we can access from anywhere. Our system primarily focuses on building an efficient and user friendly communication system, for a computer student.

Bibliography

6.Bibliography

1. Web Technologies …… Dr. Uttam Kumar Roy
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