

-Abstract-

MESA and MSP (Minority Student Programs) allowed me to obtain professional work experience in the field of computer science. A partnership forged between ELAC and JPL granted me an internship in the Receiving Inspection group.

Receiving Inspection is responsible for verifying supplier quality and requirements for incoming flight hardware and JCI (JPL Critical Items). Receiving Inspection required a consolidation of all of its parent section (QA, Quality Assurance) websites into one central website. This particular website was the center of the project I was assigned to. Some of the requirements to perform this task included the heavy use of HTML, SQL, ColdFusion, JavaScript, AJAX, and jQuery programming languages. My project tasks included:

- Uniting all content of QA group websites
- Localize all static data into one database
- Enable customization of content
- Introduce Facebook functionality

-New Layout-

The optimized layout improves upon the old in that it allows all of the groups in QA to have all their content/tools in one website. This also helps customers to QA in that they won't have to deal with 10 different places in order for them to obtain information they need about the products and services QA provides. Many websites were consulted to give a specific direction to the design of the new QA site, and to help improve the look and function of the myriad tools available to Quality Assurance. All of the static content from the different websites was transferred into one database. This helped in different ways:

- All content is easily accessible and editable
- Consolidation of content into one location eliminates redundancy, which also helps reduce non-value added time

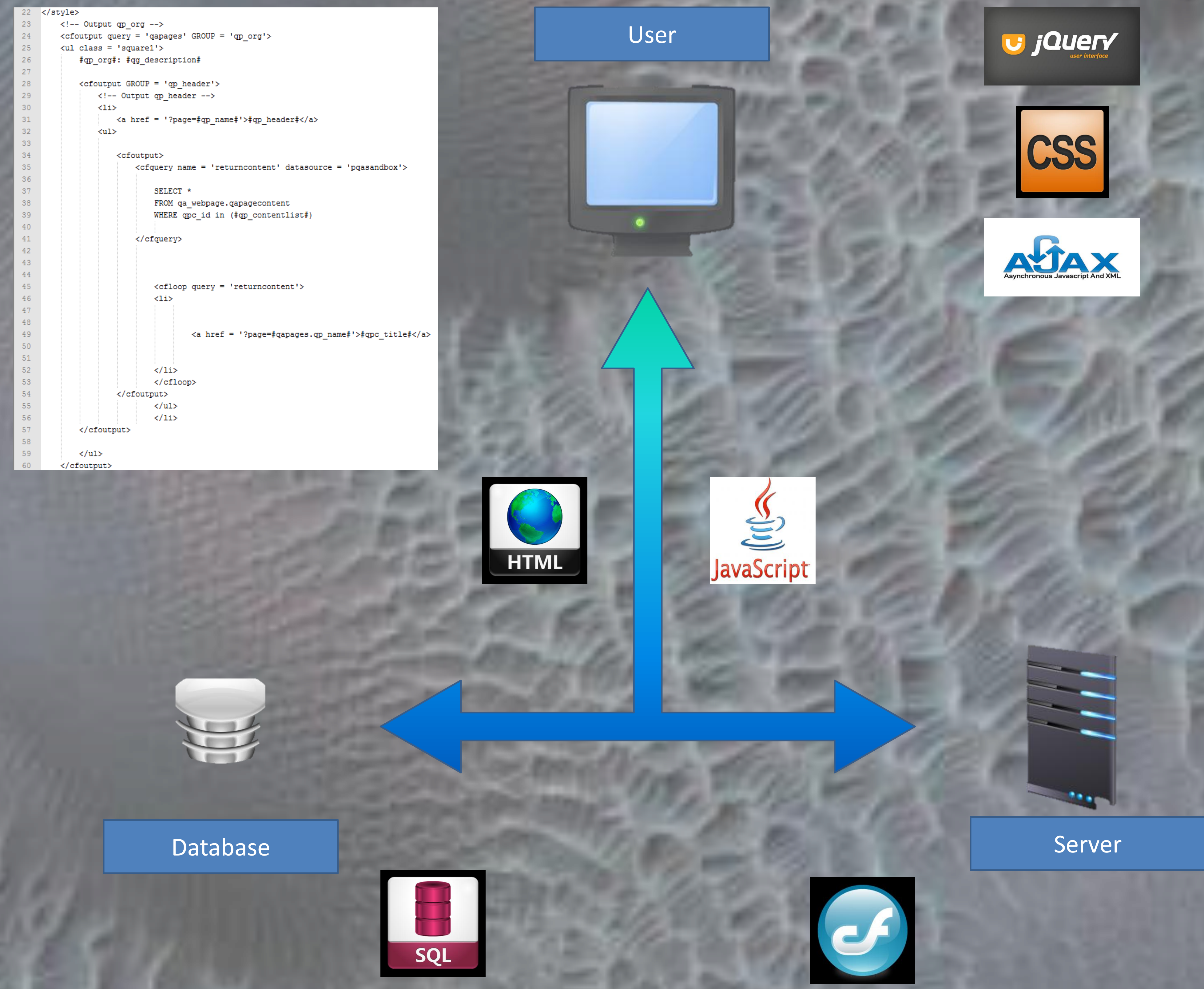
-Old Layout-

The fact that each group in the QA section has its own website with its own layout complicates the users experience because it forces the user to navigate through multiple webpages and for them to have to deal with all of the different layouts. Most of the websites were also created by outside companies. Furthermore, most of the data is static and only some of the data is located in a database. This makes it difficult to edit the content. Also there is no easy way for an admin to change any of the static data because some of the actual content is hard coded into these web pages; the only way to have content changed or to update the look of any of the websites would be for users to have extensive HTML programming knowledge and edit the content themselves given they had access to the original source code, or to outsource this job to someone else.

```

22 </style>
23 <!-- Output qp_obj -->
24 <cfoutput query = 'qspapee' GROUP = 'qp_obj'>
25 <ul class = 'square!'>
26     <li>#page_name#</li>
27 </ul>
28 <cfoutput GROUP = 'qp_header'>
29 <!-- Output qp_header -->
30 <li>
31     <a href = '#page=#page_name#>#page_name#</a>
32 </li>
33 </ul>
34 <cfquery name = 'returncontent' datasource = 'pqaesandbox'>
35     SELECT *
36     FROM qa_webpage.qspapeecontent
37     WHERE qp_obj_id IS (#qp_obj_id#)
38 </cfquery>
39
40 <cfloop query = 'returncontent'>
41 <li>
42     <a href = '#page=#page_name#>#page_title#</a>
43 </li>
44 </cfloop>
45 </cfoutput>
46 </li>
47 </ul>
48 </cfoutput>
49 </li>
50 </ul>
51 </cfoutput>
52 </li>
53 </ul>
54 </cfoutput>
55 </li>
56 </ul>
57 </cfoutput>
58 </li>
59 </ul>
60 </cfoutput>

```



-Conclusion-

Having all of the groups under one website with the same layout gives QA a more cohesive, organized feel that makes it more appealing to users. Converging all of the content into one database makes it much more dynamic and easy to update.

Some future improvements include streamlined methods to integrate new technologies, and to expand the users ability to manipulate the content of the QA site further.

-Thanks-

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