

CPU Order Search Website User Guide

May 2016

Version 1.0

1. Introduction

1.1 Scope and Purpose

This website provides the information of CPU of current sale, information of customers who registered at this store and information of orders which were from the registered customers. These information could be fetched both independently and combined. The combined search only displays the information that could match relationship between two or three of the entities(CPU, customer, order). The purpose of this website is to let users allocate the information of sale quickly.

1.2 Workflow Overview

To use this website, firstly, user selects the field that is/are interested in. Then the add optional conditions in one or more fields of CPU name, CPU speed and RAM frequency. When the user wants to clear all previous setting, **click** the "Reset" button. When lift click "Submit" button, the website will check the feasible of this search and provide alert box indicating the accordingly error. Otherwise, the information matching the search will be returned from the server database.

2. Workflow

Search Order by entering CPU info!

Please select what you want to search for

- ☐ ALL FIELDS
- ☐ CPU NAME
- ☐ CPU SPEED
- ☐ CUSTOMER ID
- ☐ CUSTOMOR NAME
- ☐ CUSTOMER ADDRESS
- ☐ ORDER NUMBER
- ☐ RAM FREQUENCY

Searching Constains:

CPU name

CPU speed > ▾

RAM Frequency(Mhz) > ▾

field selection section

optional condition input section

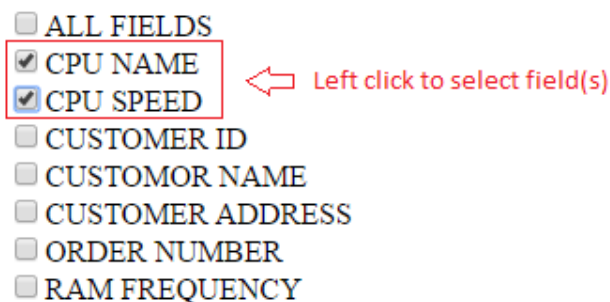
Figure 1

Figure 1 shows the user interface of this website. There are 2 main sections: field selection section and optional condition input section. Field selection section is **required** to select. The search result will show the selected fields accordingly. The optional condition input section is used to let the user input some additional condition in the search.

2.1 Step 1: field selection

Search Order by entering CPU info!

Please select fields that you want to search in



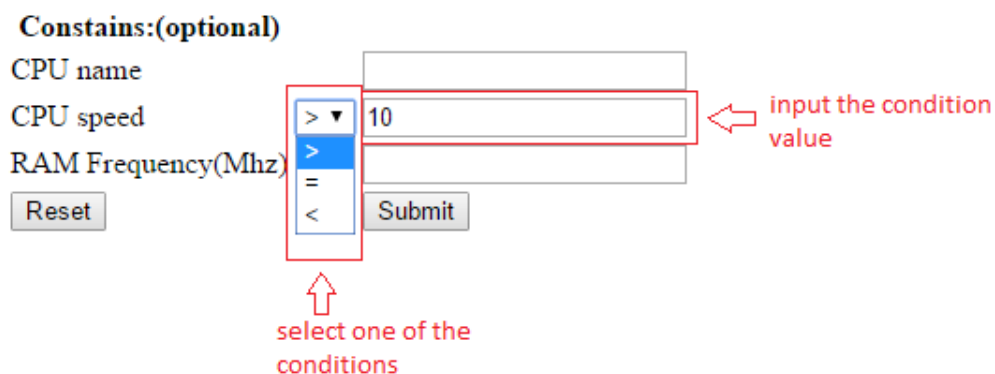
☐ ALL FIELDS
☒ CPU NAME
☒ CPU SPEED
☐ CUSTOMER ID
☐ CUSTOMOR NAME
☐ CUSTOMER ADDRESS
☐ ORDER NUMBER
☐ RAM FREQUENCY

Left click to select field(s)

Figure 2

To select field(s), just **check** the checkbox like showing in **Figure 2**. User can select multiple fields, either by selecting "ALL FIELDS" or by selecting each individual field of interests. When selecting both "ALL FIELDS" and any other fields, the website default logic sets "ALL FIELDS" with higher priority, thus, the returned result will have all other fields on the field select section.

2.2 Step 2: condition input



Constains:(optional)

CPU name

CPU speed

RAM Frequency(Mhz)

Reset

Submit

select one of the conditions

input the condition value

Figure 3

This step is optional. The purpose of this step is to refine the search to get more accurate result. There are three optional condition that can be used as shown in **Figure 3**. "CPU name" field can be used if the user know the CPU's name and wants to search only information about this CPU. "CPU speed" and "RAM Frequency(Mhz)" field can be used if the user wants to show result according to a certain range of CPU speed and/or RAM frequency. Each of this two fields has 3 types of condition associating with the input value initially as ">"(less than). As an instance shown in **Figure 3**, this combination means that the condition is set to "given CPU speed is less than 10".

When the user selects to use optional condition to refine the search however does not select the either one of the CPU field("CPU NAME", "CPU SPEED") or "ALL FIELDS" in the field selection section, there is an alert box popping up when **click** "Submit" button, indicating that at least one of these fields should be checked and the focus will remain the current page, as shown in **Figure 4**.

Search Order by entering CPU info!

Please select fields that you want to search in

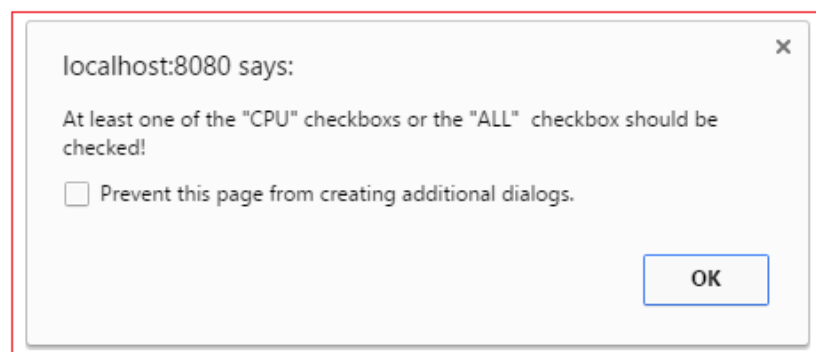
- ☐ ALL FIELDS
- ☐ CPU NAME
- ☐ CPU SPEED
- ☒ CUSTOMER ID
- ☐ CUSTOMOR NAME
- ☐ CUSTOMER ADDRESS
- ☐ ORDER NUMBER
- ☐ RAM FREQUENCY

Constains:(optional)

CPU name

CPU speed

RAM Frequency(Mhz)



↑
set the condition without selecting the "CPU" field, an alert will popped up when click "Submit" button. After click "OK" on alert box, the focus will remain on current page.

Figure 4

2.2 Step 3: Reset or Submit query to view results

Reset: If there are multiple portion of this search need to be modified, the user could easily **click** "Reset" button to clear all the previous settings and selections, and start from the beginning(refer to step 1).

Submit: When the user feel safe to perform the query, **click** "Submit" button. The server side program will return a new page with searching result as shown in **Figure 5(a)(b)**.

Search Order by entering CPU info!

Please select fields that you want to search in

The screenshot shows a web form for searching. At the top, it says "Search Order by entering CPU info!". Below that, it asks "Please select fields that you want to search in". There is a list of checkboxes: "ALL FIELDS", "CPU NAME", "CPU SPEED", "CUSTOMER ID", "CUSTOMOR NAME", "CUSTOMER ADDRESS", "ORDER NUMBER", and "RAM FREQUENCY". The first four are checked, and a red box highlights them with an arrow pointing to the text "checked fields". Below this, there is a section "Constains:(optional)" with three rows: "CPU name" with a text input field, "CPU speed" with a dropdown menu and a text input field, and "RAM Frequency(Mhz)" with a dropdown menu and a text input field. At the bottom, there are two buttons: "Reset" and "Submit". The "Submit" button is highlighted with a red box and an arrow pointing to the text "click 'Submit' button".

(a) User Interface Page

```
SELECT 1,cpu.cpu_id,cpu.speed_mhz,customer.cust_num,customer.name FROM cpu, customer, orders WHERE
cpu.cpu_id=orders.cpu AND customer.cust_num=orders.cust_num ;
```

Result

cpu.cpu_id	cpu.speed_mhz	customer.cust_num	customer.name
Z80	1	61	Grace Hopper
Z80	1	123	William Gates
Power27	3550	2	Augusta Ada King

(b) Search Result Return Page

Figure 5

3. Appendices

3.1 Platform

This website has been tested on desktop version browsers:

Google Chrome	Version 50.0.2661.94 m
Mozilla Firefox	45.0
Microsoft Edge	25.10586.0.0
Mac OS Safari	9.1

3.2 Issues and Bugs

- 1) Logic issue: some redundancy in server side PHP program. These could be solved in the further version, using JavaScript in the User Interface Page to check the logic initially.
- 2) Efficiency of use: this query could be dynamic. This could be solved in the further version, using AJAX.