CS319 Section 2 1/29/2020 Zhanghao Wen

2.1 Solution approach:

Run 4 functions to validate each entry: validate first name, last name, gender, and state.

In name validation function, take advantage of /^[0-9a-zA-Z]+$ to test whether input contain only numbers or alphabetic symbols.

In gender and state validation function, check whether the input is empty (“---select---”), if not, then it means that user has selected, then passed validation rules.

In each validation function implementation, if requirement is not matched, then its corresponding text of validation rules would become red to notify user and “result” section will display a red cross mark. If passed, then a green check mark will display in “result” section.

If user failed a single validation, then at the very bottom will display again to let user follow validation rule. To do this, I took advantage of & operator instead of && in if condition to make sure execute all functions in if condition.

If all four validation are passed, then the page will be direct to another page called validation2.html. Well before this action do, you probably can notice that you got all 4 green check marks during a very short moment.

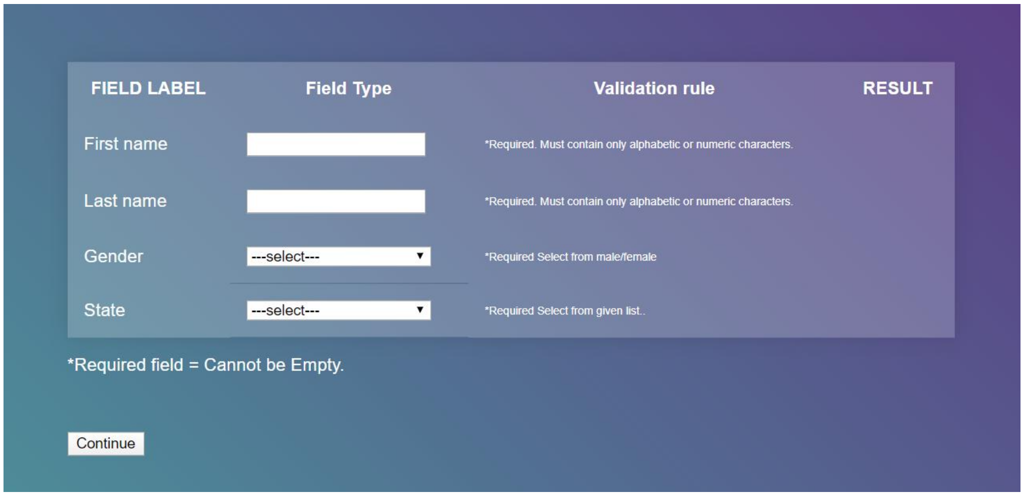
2.2 Solution approach:

The solution approach of this section is pretty similar to last section’s approach. The difference is that we removed one row in the table. The general process includes rename table cell contents, change variable name and its corresponding ID name, create validation functions to handle different entries.

For validate email and phone, we need to analyze the format where we utilized split method to analyze part by part. For example, email format includes xxx@xxx.xxx where x should be alphanumeric, and phone format must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric. So we split them and verify the property of their values. Two helper functions called alphaNumCheck and numCheck are created and they used key function of HTML pattern matching. For example /^[a-z0-9]+$/I can represent all values from a-z and 0-9 case insensitive.

Screenshot:

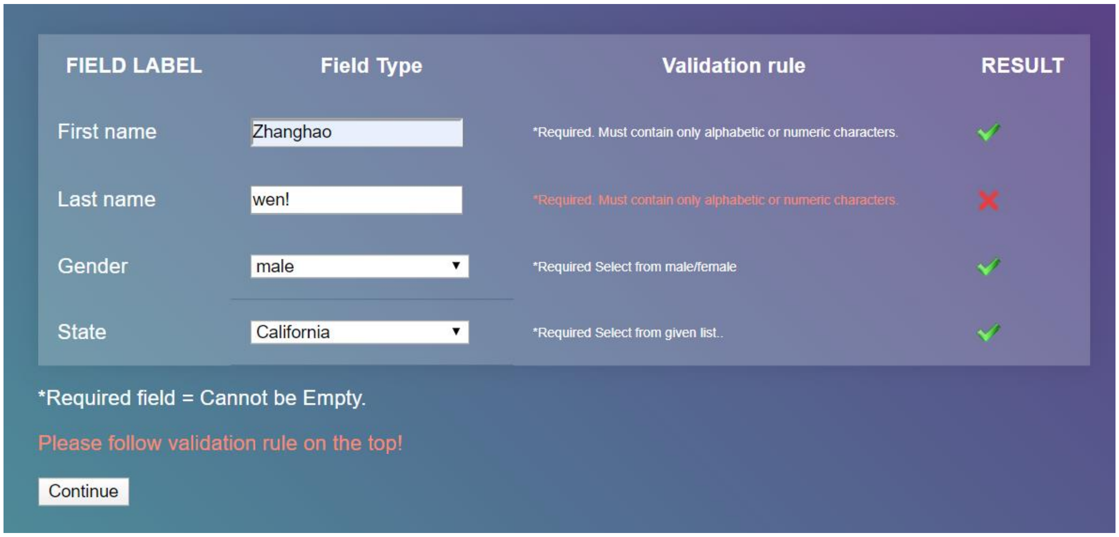
Open validation1.html:



FIELD LABEL	Field Type	Validation rule	RESULT
First name		*Required. Must contain only alphabetic or numeric characters.	
Last name		*Required. Must contain only alphabetic or numeric characters.	
Gender	---select--- ▼	*Required Select from male/female	
State	---select--- ▼	*Required Select from given list..	

*Required field = Cannot be Empty.

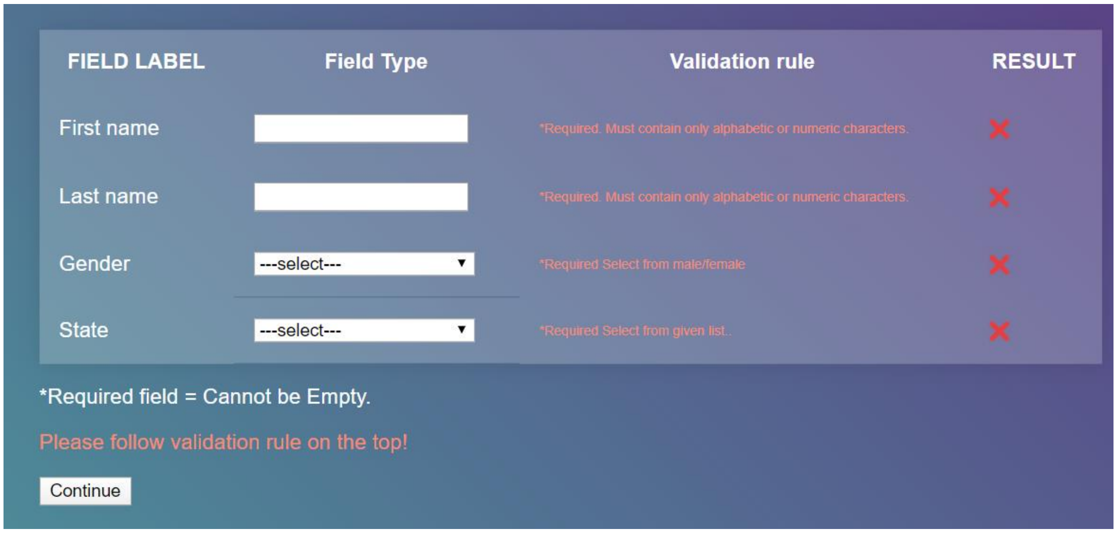
Below are some examples of validation failed:



FIELD LABEL	Field Type	Validation rule	RESULT
First name	Zhanghao	*Required. Must contain only alphabetic or numeric characters.	✓
Last name	wen!	*Required. Must contain only alphabetic or numeric characters.	✗
Gender	male ▾	*Required Select from male/female	✓
State	California ▾	*Required Select from given list..	✓

*Required field = Cannot be Empty.

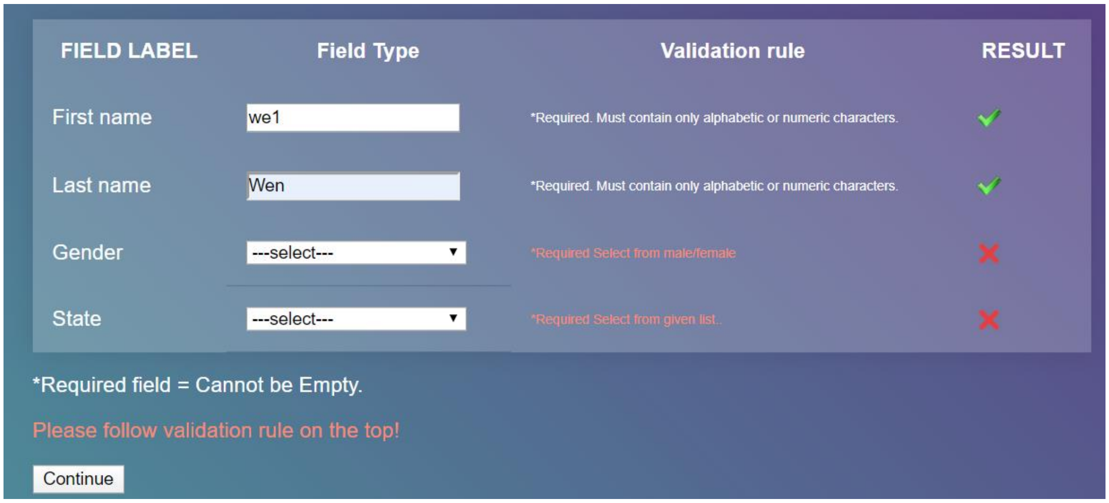
Please follow validation rule on the top!



FIELD LABEL	Field Type	Validation rule	RESULT
First name		*Required. Must contain only alphabetic or numeric characters.	✗
Last name		*Required. Must contain only alphabetic or numeric characters.	✗
Gender	---select--- ▾	*Required Select from male/female	✗
State	---select--- ▾	*Required Select from given list..	✗

*Required field = Cannot be Empty.

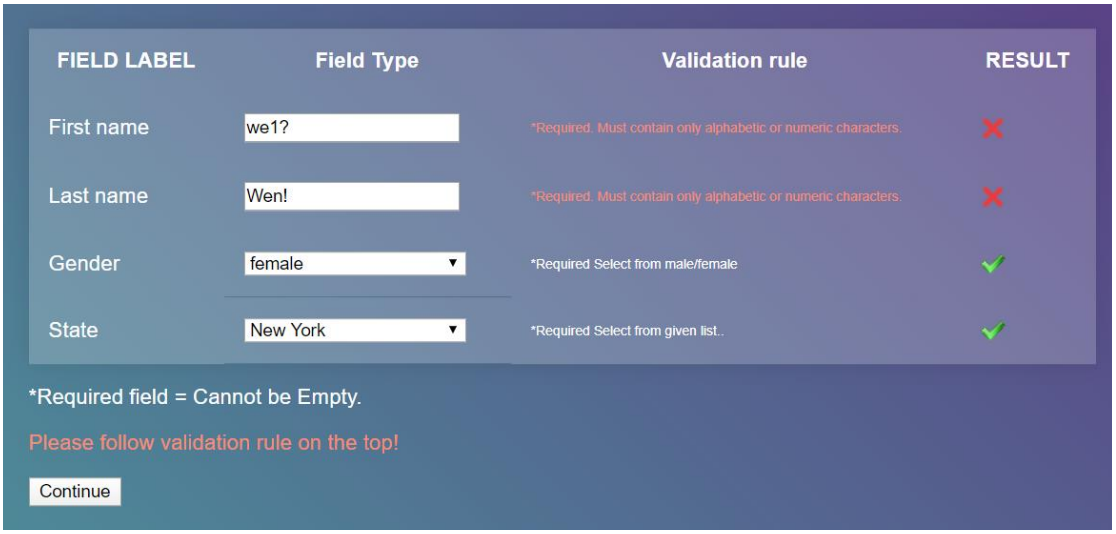
Please follow validation rule on the top!



FIELD LABEL	Field Type	Validation rule	RESULT
First name	we1	*Required. Must contain only alphabetic or numeric characters.	✓
Last name	Wen	*Required. Must contain only alphabetic or numeric characters.	✓
Gender	---select--- ▾	*Required Select from male/female	✗
State	---select--- ▾	*Required Select from given list..	✗

*Required field = Cannot be Empty.

Please follow validation rule on the top!

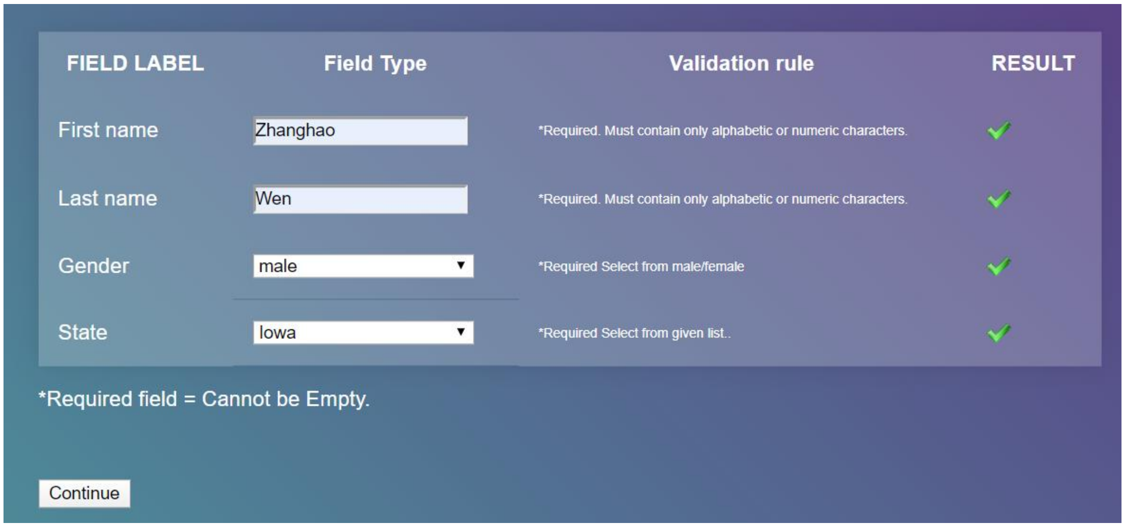


FIELD LABEL	Field Type	Validation rule	RESULT
First name	we1?	*Required. Must contain only alphabetic or numeric characters.	✗
Last name	Wen!	*Required. Must contain only alphabetic or numeric characters.	✗
Gender	female ▼	*Required Select from male/female	✓
State	New York ▼	*Required Select from given list..	✓

*Required field = Cannot be Empty.

Please follow validation rule on the top!

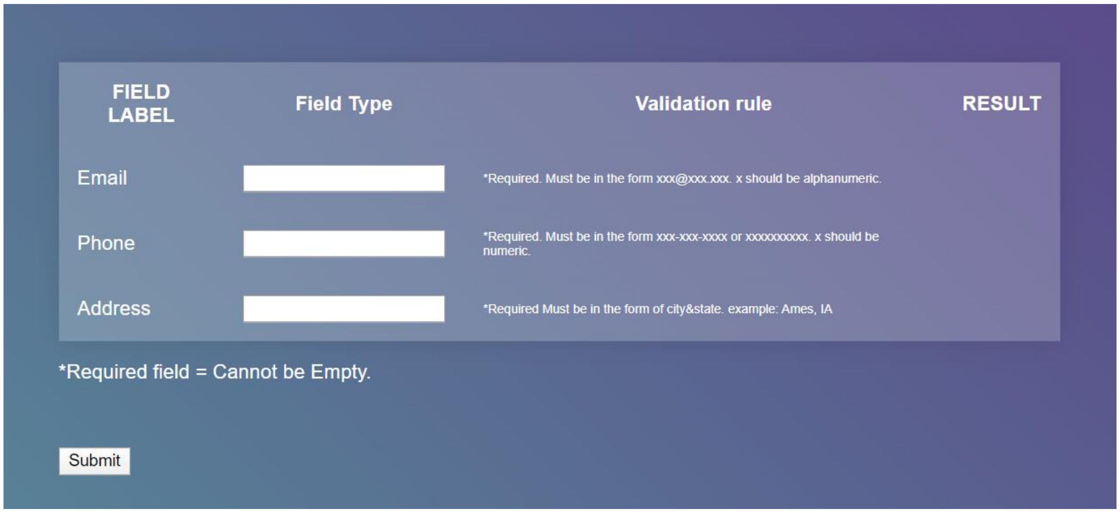
Next is an example of success validation:



FIELD LABEL	Field Type	Validation rule	RESULT
First name	Zhanghao	*Required. Must contain only alphabetic or numeric characters.	✓
Last name	Wen	*Required. Must contain only alphabetic or numeric characters.	✓
Gender	male ▼	*Required Select from male/female	✓
State	Iowa ▼	*Required Select from given list..	✓

*Required field = Cannot be Empty.

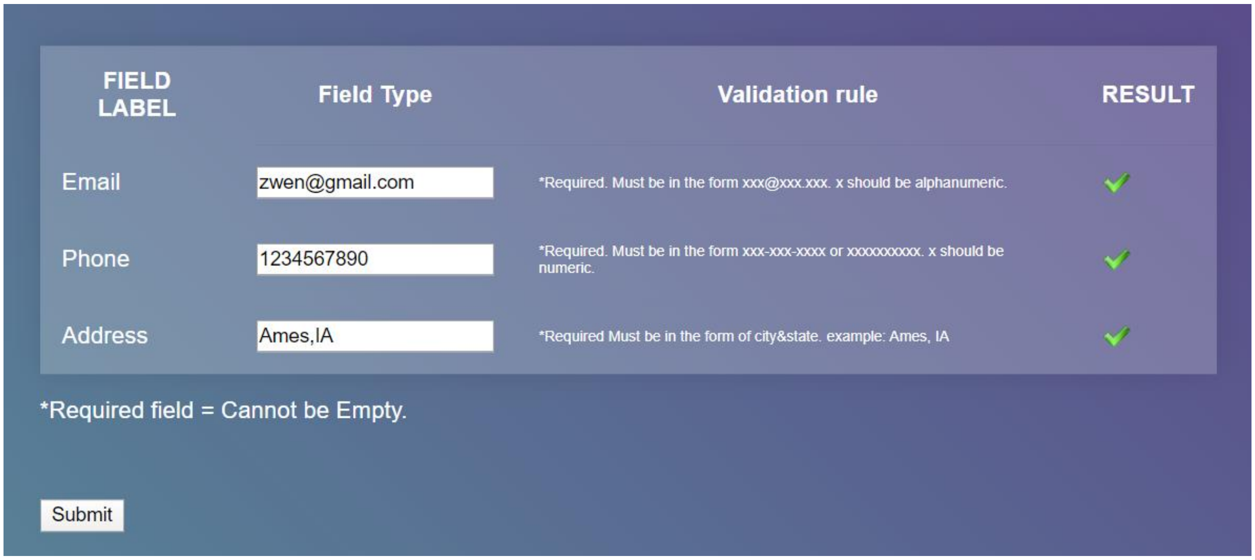
Click continue and it will direct to next page:



FIELD LABEL	Field Type	Validation rule	RESULT
Email		*Required. Must be in the form xxx@xxx.xxx. x should be alphanumeric.	
Phone		*Required. Must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric.	
Address		*Required Must be in the form of city&state. example: Ames, IA	

*Required field = Cannot be Empty.

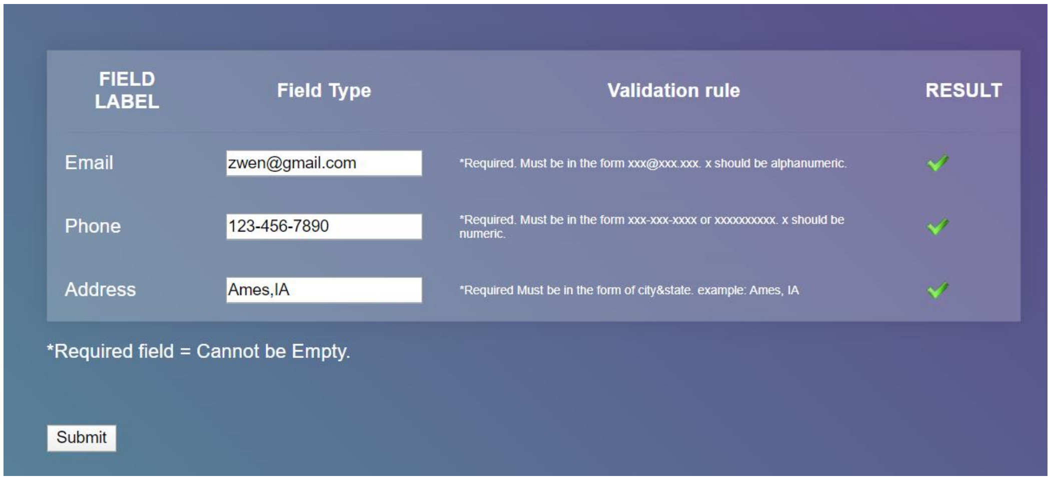
This is an example of good validation, phone format is xxxxxxxxxx:



FIELD LABEL	Field Type	Validation rule	RESULT
Email	zwen@gmail.com	*Required. Must be in the form xxx@xxx.xxx. x should be alphanumeric.	✓
Phone	1234567890	*Required. Must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric.	✓
Address	Ames,IA	*Required Must be in the form of city&state. example: Ames, IA	✓

*Required field = Cannot be Empty.

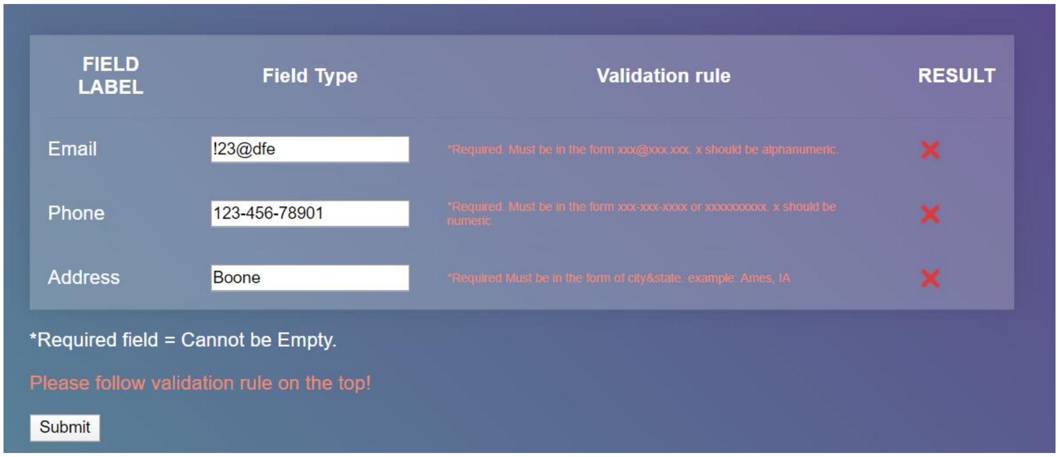
This is another example of good validation, phone format is xxx-xxx-xxxx:



FIELD LABEL	Field Type	Validation rule	RESULT
Email	zwen@gmail.com	*Required. Must be in the form xxx@xxx.xxx. x should be alphanumeric.	✓
Phone	123-456-7890	*Required. Must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric.	✓
Address	Ames,IA	*Required Must be in the form of city&state. example: Ames, IA	✓

*Required field = Cannot be Empty.

This is an example of bad validation:

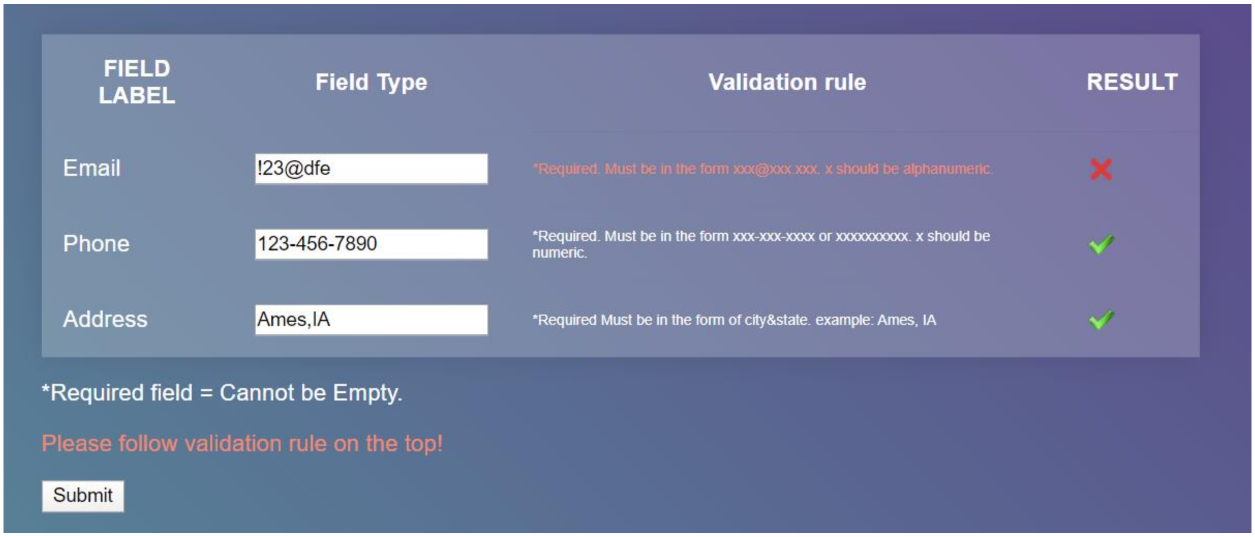


FIELD LABEL	Field Type	Validation rule	RESULT
Email	!23@dfe	*Required. Must be in the form xxx@xxx.xxx. x should be alphanumeric.	✗
Phone	123-456-78901	*Required. Must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric.	✗
Address	Boone	*Required Must be in the form of city&state. example: Ames, IA	✗

*Required field = Cannot be Empty.

Please follow validation rule on the top!

So, if one entry does not match its rule, then the text will turn red to notify the user and also above the submit button there will be another notification. Only all 3 conditions match then the notification will disappear:



FIELD LABEL	Field Type	Validation rule	RESULT
Email	!23@dfe	*Required. Must be in the form xxx@xxx.xxx. x should be alphanumeric.	✗
Phone	123-456-7890	*Required. Must be in the form xxx-xxx-xxxx or xxxxxxxxxx. x should be numeric.	✓
Address	Ames,IA	*Required Must be in the form of city&state. example: Ames, IA	✓

*Required field = Cannot be Empty.

Please follow validation rule on the top!