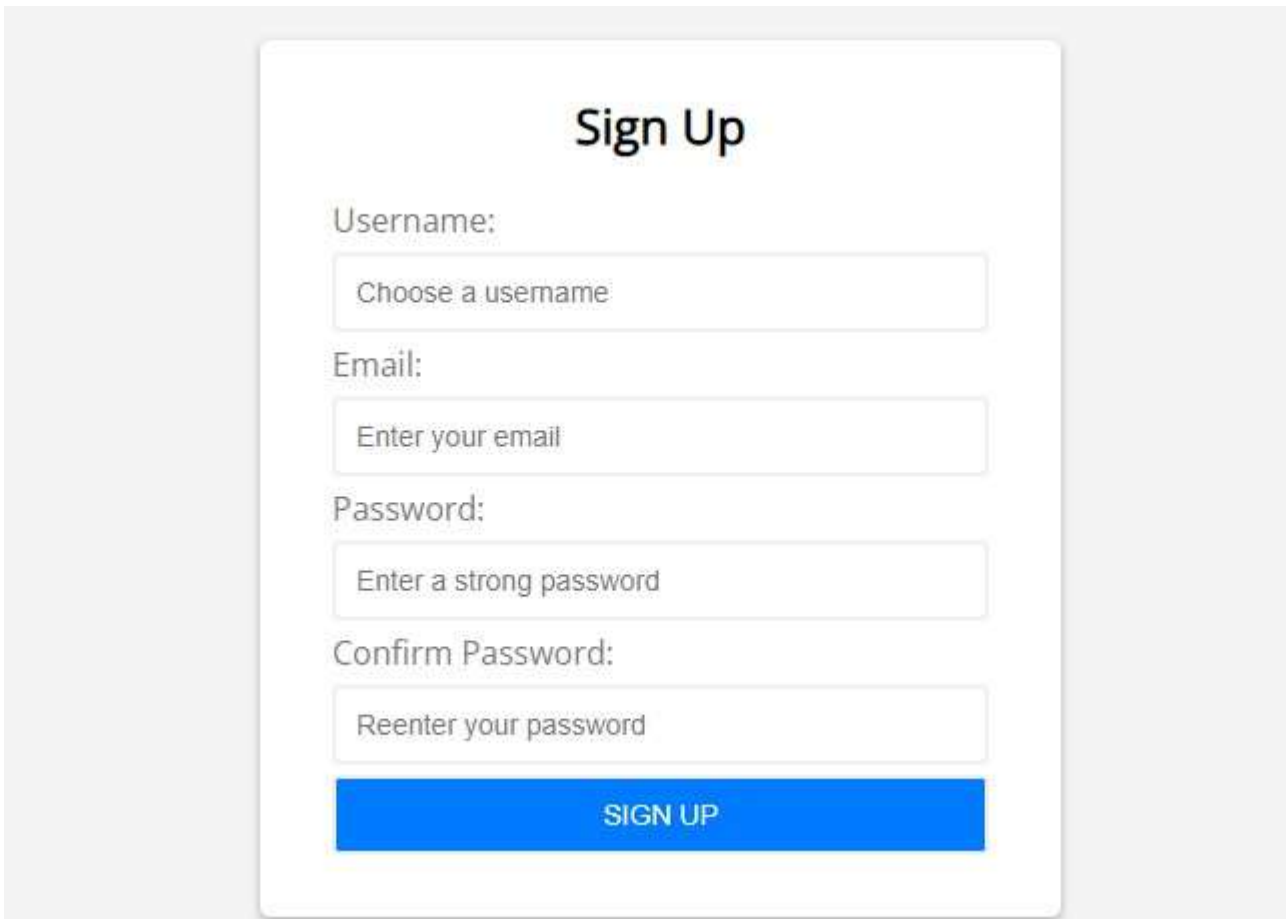


Lab #2(a)

Lab#2(a) Implement JavaScript Validations to the registration form using Event Listener and Events.

TAGS USED	ATTRIBUTES USED	DESCRIPTION
<SCRIPT>		Denotes html code
<FUNCTION>		Initialize constant variable
<CONST>		To select input fields
<METHOD>	Username, email, password, confirm password and sign up	Check the field value
Regular expression		Check the field value

Final Outcome:



Sign Up

Username:

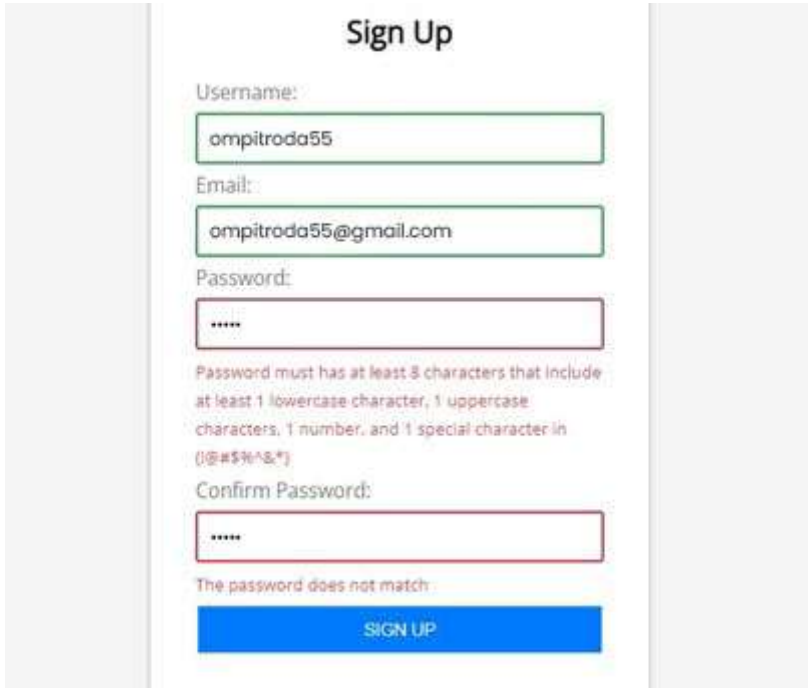
Email:

Password:

Confirm Password:

SIGN UP

Lab #2(a)



Code Snippet:

```
<script>
const usernameEl = document.querySelector('#username'); const emailEl =
document.querySelector('#email'); const passwordEl = document.querySelector('#password');
const confirmPasswordEl = document.querySelector('#confirm-password');

const form = document.querySelector('#signup');

const checkUsername = () => {

  let valid = false;

  const min = 3,    max = 25;

  const username = usernameEl.value.trim();

  if (!isRequired(username)) {    showError(usernameEl, 'Username cannot be blank. '); } else if
(!isBetween(username.length, min, max)) {
    showError(usernameEl, `Username must be between ${min} and ${max} characters.`)
  } else {
    showSuccess(usernameEl);
    valid = true;
  }
}
return valid;
```



Lab #2(a)

```
};

const checkEmail = () => {  let valid = false;
  const email = emailEl.value.trim();  if (!isRequired(email)) {
    showError(emailEl, 'Email cannot be blank.');
```

} else if (!isEmailValid(email)) {
 showError(emailEl, 'Email is not valid.')

} else {
 showSuccess(emailEl); valid = true;
 }
 return valid;
};

let valid = false;

const password = passwordEl.value.trim();

if (!isRequired(password)) {
 showError(passwordEl, 'Password cannot be blank.');

} else if (!isPasswordSecure(password)) {
 showError(passwordEl, 'Password must has at least 8 characters that include at least 1 lowercase
character, 1 uppercase characters, 1 number, and 1 special character in (!@#\$\$%^&*)');

} else {
 showSuccess(passwordEl);
 valid = true;
}

return valid;

};

const checkConfirmPassword = () => {
 let valid = false;

const confirmPassword = confirmPasswordEl.value.trim(); const password =
passwordEl.value.trim();

if (!isRequired(confirmPassword)) {
 showError(confirmPasswordEl, 'Please enter the password again');

} else if (password !== confirmPassword) {
 showError(confirmPasswordEl, 'The password does not match');

} else {
 showSuccess(confirmPasswordEl); valid = true;
}

return valid;



Lab #2(a)

```

};
const isEmailValid = (email) => {
  const re = /^[^<>()\[\]\\\.,;:\s@"]+(\.[^<>()\[\]\\\.,;:\s@"]+)*|("[^"]+")@((\[[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.([a-zA-Z]{2,})$)|((\[[a-zA-Z-0-9]+\.[a-zA-Z]{2,})$)/;  return re.test(email);
};

const isPasswordSecure = (password) => {
  const re = new RegExp("^(?=.*[a-z])(?=.*[A-Z])(?=.*[0-9])(?=.*[!@#\$%\^&*])(?={8,})");  return re.test(password);
};

const isRequired = value => value === "" ? false : true;
const isBetween = (length, min, max) => length < min || length > max ? false : true;

const showError = (input, message) => {

  const formField = input.parentElement;

  formField.classList.remove('success');
  formField.classList.add('error');

  const error = formField.querySelector('small');  error.textContent = message;
};

const showSuccess = (input) => {

  const formField = input.parentElement;

  formField.classList.remove('error');  formField.classList.add('success');

  const error = formField.querySelector('small');
  error.textContent = "";
}

form.addEventListener('submit', function (e) {

  e.preventDefault();

  let isUsernameValid = checkUsername(),  isEmailValid = checkEmail(),  isPasswordValid = checkPassword(),
  isConfirmPasswordValid = checkConfirmPassword();

```



Lab #2(a)

```
let isValid = isUsernameValid &&
    isEmailValid &&    isPasswordValid &&    isConfirmPasswordValid;

if (isValid) {
}
});

const debounce = (fn, delay = 500) => {
    let timeoutId;
    return (...args) => {

        if (timeoutId) {
            clearTimeout(timeoutId);
        }

        timeoutId = setTimeout(() => {      fn.apply(null, args)
        }, delay);
    };
};

form.addEventListener('input', debounce(function (e) {
    switch (e.target.id) {    case 'username':    checkUsername();    break;    case 'email':
checkEmail();    break;    case 'password':    checkPassword();    break;    case
'confirm-password':    checkConfirmPassword();
        break;
    }
}));
</script>
```