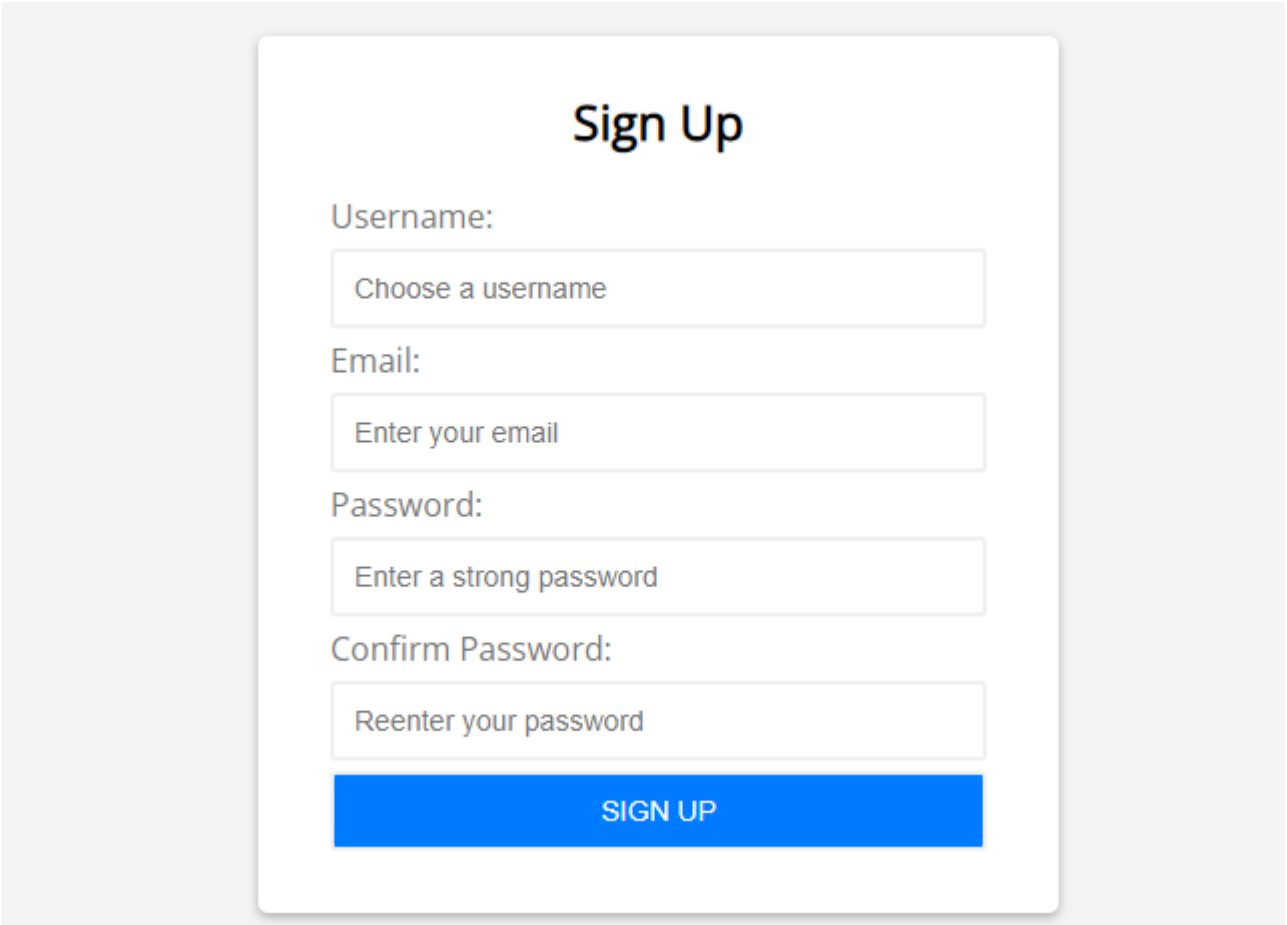
Lab #2

Lab#2(a) Implement JavaScript Validations to the registration form using Event listeners and events

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

Final Outcome:



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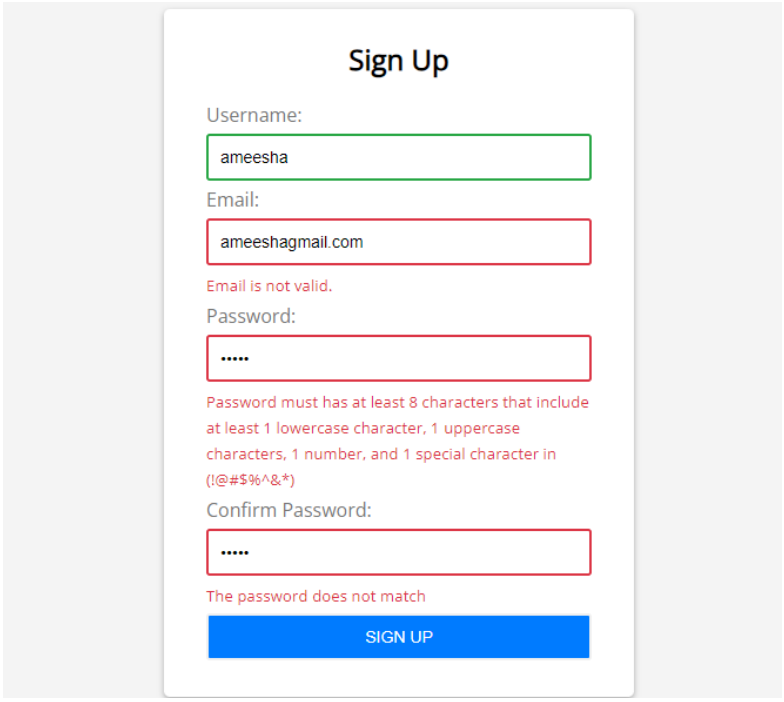
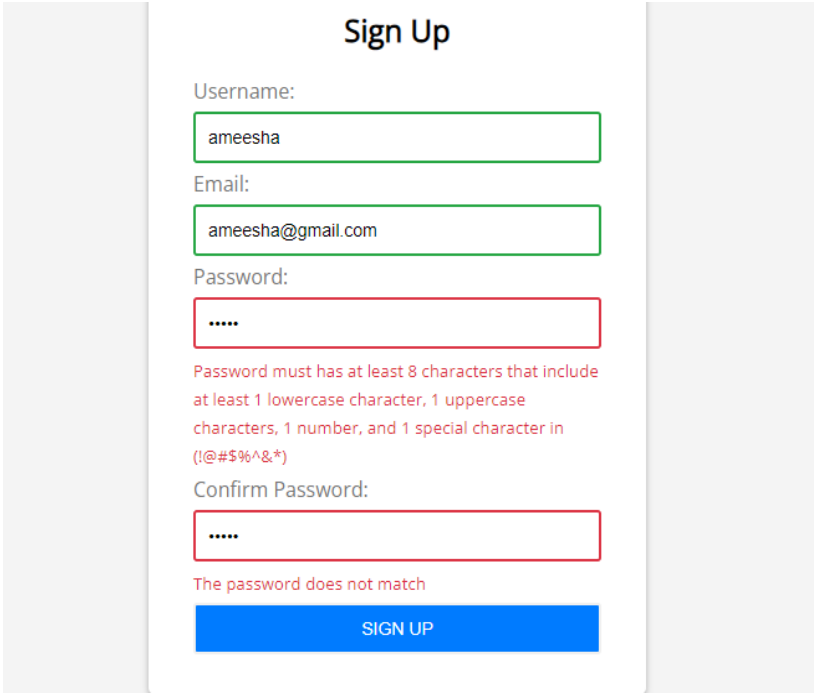
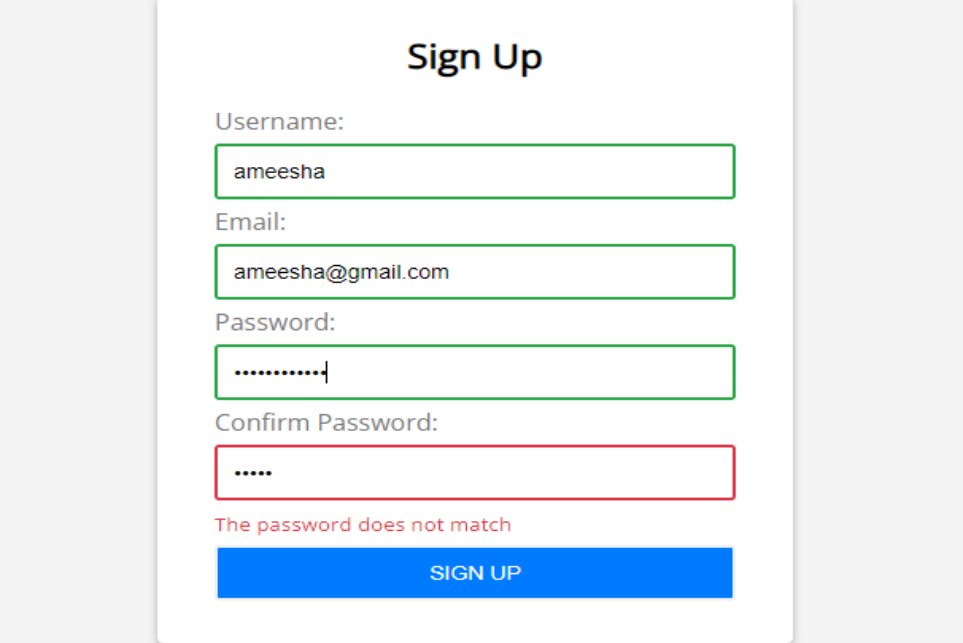
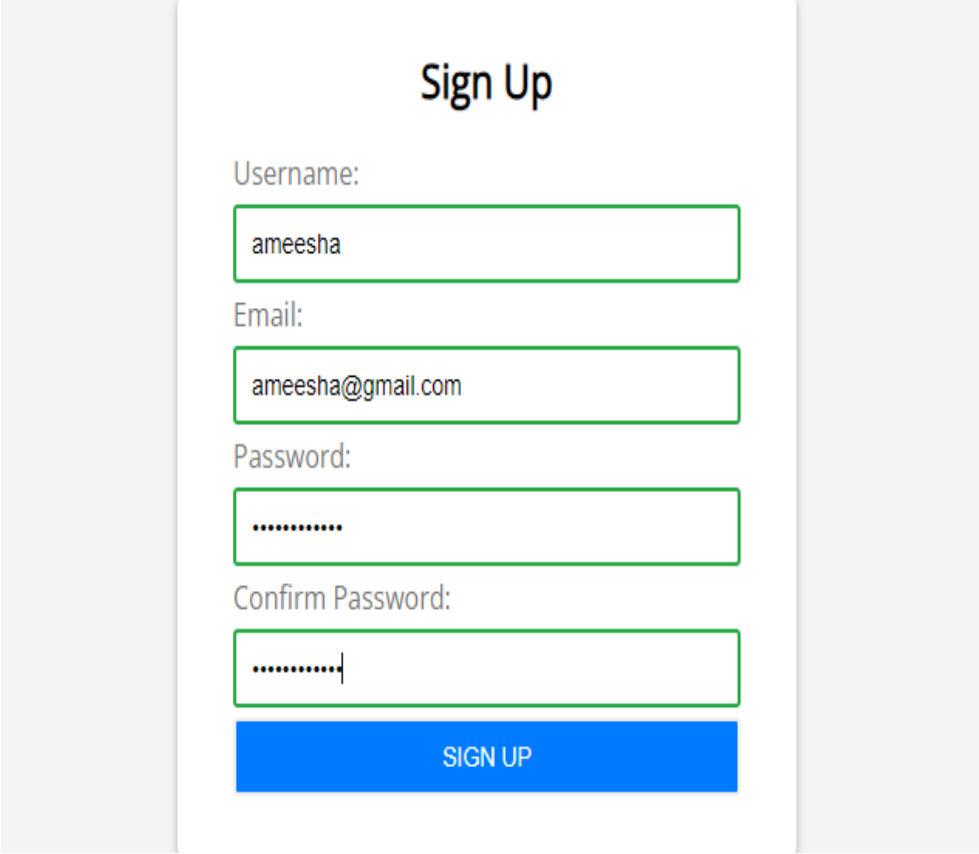

Sign Up
Username:
ameesha
Email:
ameeshagmail.com
Email is not valid.
Password:
.....
Password must has at least 8 characters that include at least 1 lowercase character, 1 uppercase characters, 1 number, and 1 special character in (!@#$%^&*)
Confirm Password:
.....
The password does not match
SIGN UP


Sign Up
Username:
ameesha
Email:
ameesha@gmail.com
Password:
.....
Password must has at least 8 characters that include at least 1 lowercase character, 1 uppercase characters, 1 number, and 1 special character in (!@#$%^&*)
Confirm Password:
.....
The password does not match
SIGN UP





Code Snippet:

```
<script>
```

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```
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;
};

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

    let isFormValid = isUsernameValid &&
        isEmailValid &&
        isPasswordValid &&
        isConfirmPasswordValid;


    if (isFormValid) {

    }
});


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>
```