

TP-02

# JavaScript

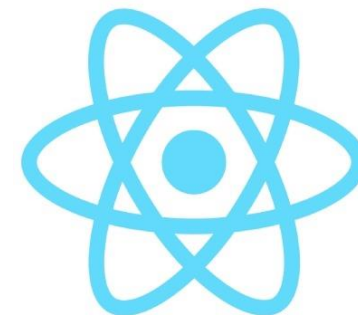
(Canvas, CRUD)



Svelte



NodeJS



ReactJS &  
React native

Why JavaScript 🙄??



AngularJS



VueJS



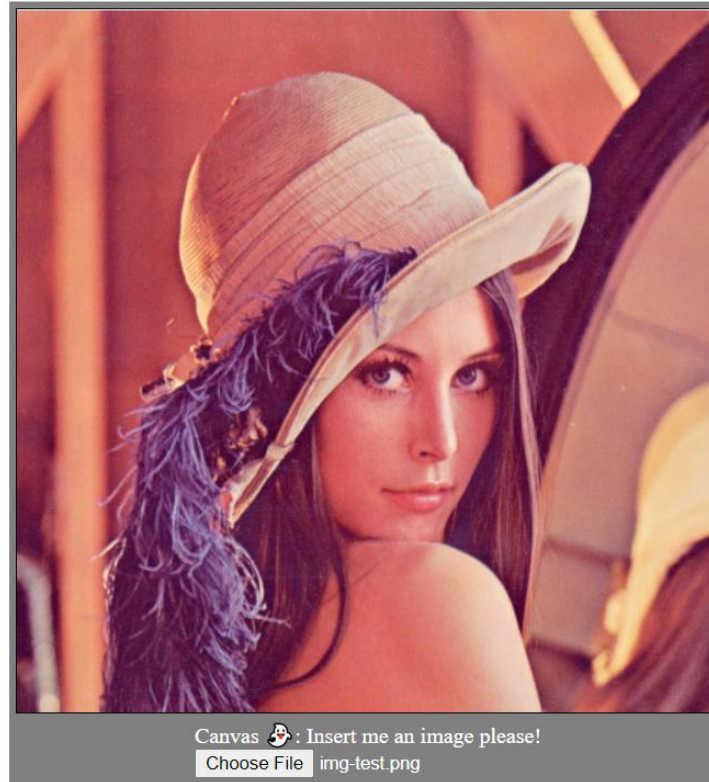
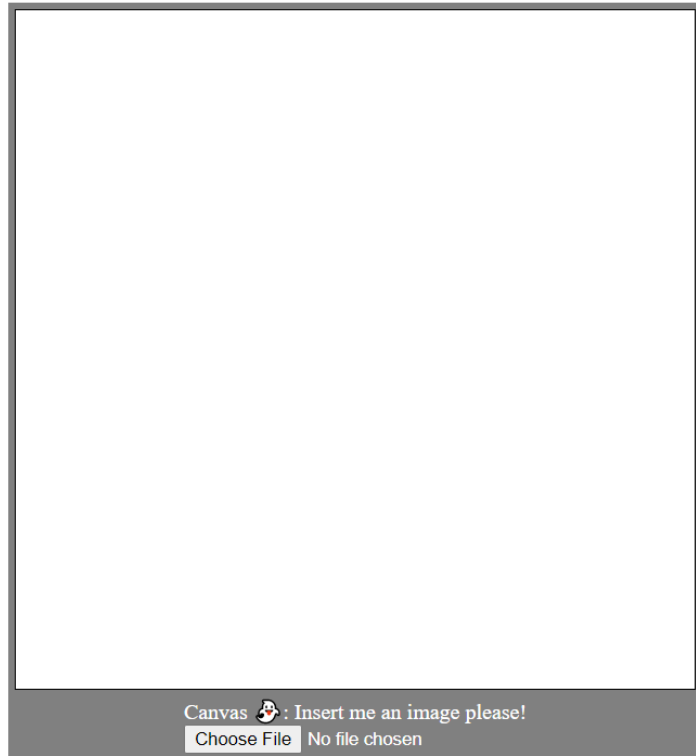
NuxtJS



NextJS

# Canvas

## EX1: draw an uploaded image to a Canvas



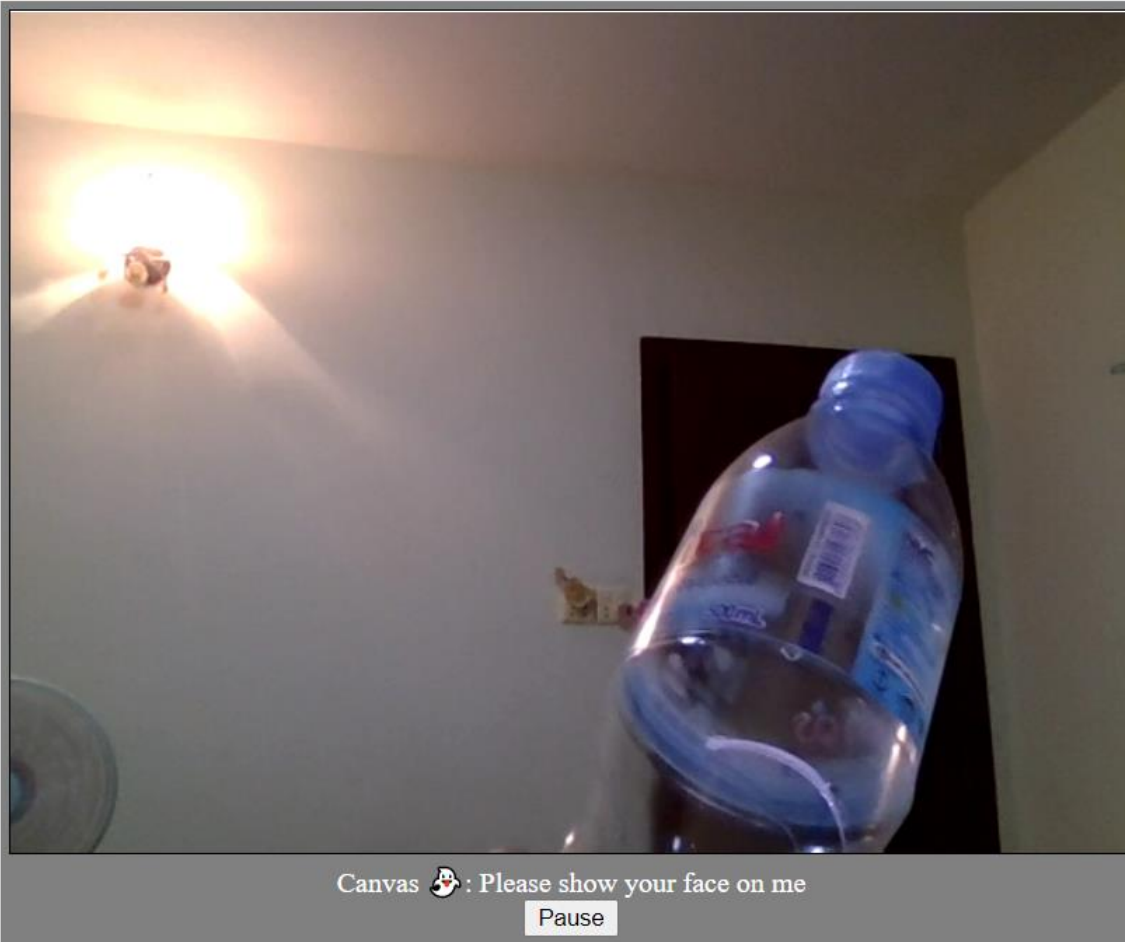
Tips

```
/**
 * Clue
 */
function handleImage(uploadedImgFile) {
  var reader = new FileReader();
  reader.onload = function (event) {
    var img = new Image();
    img.onload = function () {
      // ...
      // Draw an image here
    }
    img.src = event.target.result;
  }
  reader.readAsDataURL(uploadedImgFile);
}
```

# Canvas

## EX2: draw a live camera video into a Canvas

Tips

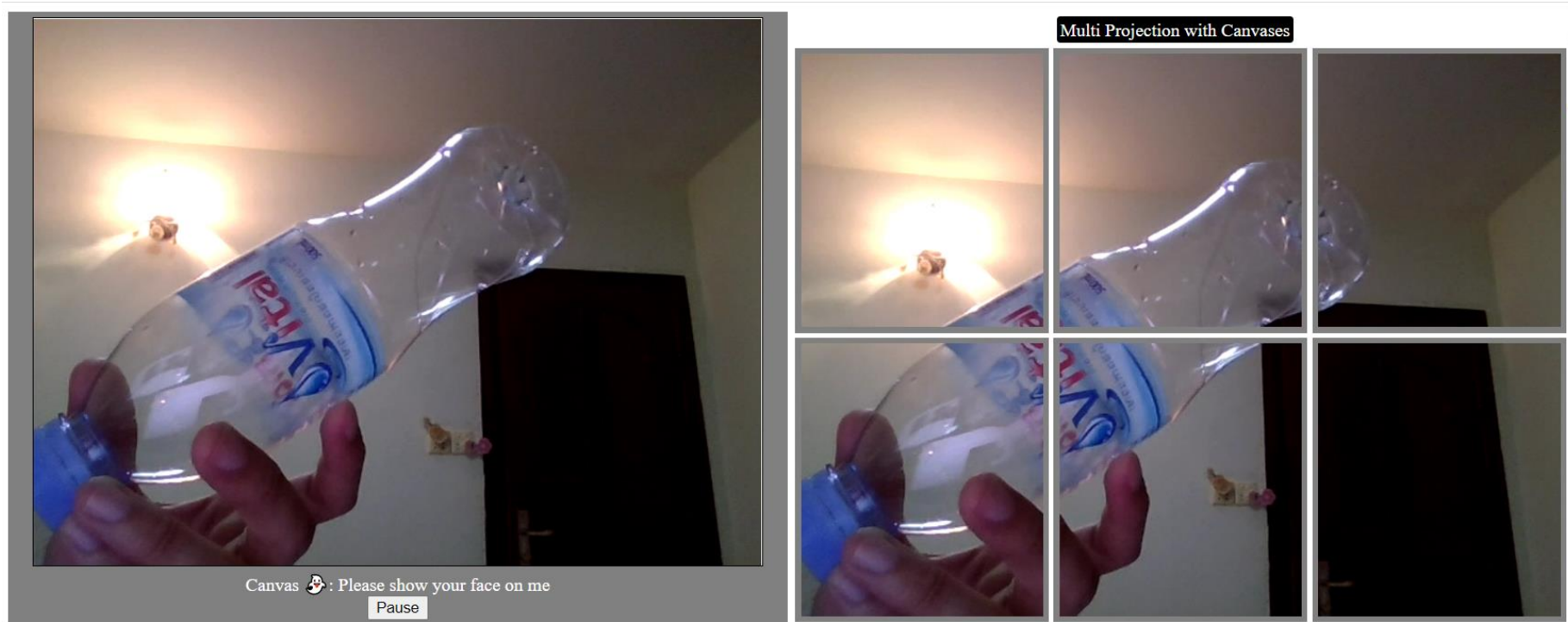


```
/**
 * Access camera
 */
navigator.mediaDevices.getUserMedia({
  audio: false,
  video: true
}).then((stream) => {
  video.srcObject = stream;
}).catch((err) => {
  console.log('navigator.MediaDevices.getUserMedia error: ', err.message, err.name);
});
```

```
(function loop() {
  if(playing){
    canvas.getContext('2d').drawImage(video, 0, 0, canvas.width, canvas.height);
    setTimeout(loop, 1000 / 30); // drawing at 30fps
  }
})();
```

# Canvas

EX3: draw a live camera video into multiple projection within Canvas



Tips

```
let src = cv.imread('input-canvas');  
let dst = new cv.Mat();  
let rect = new cv.Rect(startX, startY, endX, endY);  
dst = src.roi(rect);  
cv.imshow('output-canvas', dst);
```

Import OpenCV: [https://docs.opencv.org/3.4/d0/d84/tutorial\\_js\\_usage.html](https://docs.opencv.org/3.4/d0/d84/tutorial_js_usage.html)

OpenCV basic operation: [https://docs.opencv.org/3.4/de/d06/tutorial\\_js\\_basic\\_ops.html](https://docs.opencv.org/3.4/de/d06/tutorial_js_basic_ops.html)

# CRUD

## EX4: Book shop CRUD (Create, Remove, Update, and Delete)


Name:

Category:

Price:


Add

Delete Change name




Name: Book I1  
Price: 100 riel  
Category: English

Delete Change name




Name: Book I2  
Price: 100 riel  
Category: English

Delete Change name




Name: Book I3  
Price: 100 riel  
Category: English

Delete Change name




Name: Book I4  
Price: 100 riel  
Category: English

Delete Change name



Name: Book I5  
Price: 100 riel  
Category: English

Delete Change name



Name: Book I6  
Price: 100 riel  
Category: English

- ✓ Grid view of book collection
- ✓ Add new book
- ✓ Delete book
- ✓ Update new name

👉 You can use both **JavaScript** or **jQuery**

Good luck 🍀