JavaScript

Control Flow

Condicionais

If…else if… else

```
if (condition) {
  statement1;
} else {
  statement2;
}
```

```
if (condition1) {
  statement1;
} else if (condition2) {
  statement2;
} else if (conditionN) {
  statementN;
} else {
  statementLast;
}
```

Condicionais

switch

```
switch (expression) {
  case label1:
    statements1;
    break;
  case label2:
    statements2;
    break;
  // …
  default:
    statementsDefault;
}
```

Tratamento de Exceções

try…catch

```
function getMonthName(mo) {
  mo--; // Adjust month number for array index (so that 0 = Jan, 11 = Dec)
  const months = [
    "Jan", "Feb", "Mar", "Apr", "May", "Jun",
    "Jul", "Aug", "Sep", "Oct", "Nov", "Dec",
  ];
  if (months[mo]) {
    return months[mo];
  } else {
    throw new Error("InvalidMonthNo"); // throw keyword is used here
  }
}

try {
  // statements to try
  monthName = getMonthName(myMonth); // function could throw exception
} catch (e) {
  monthName = "unknown";
  logMyErrors(e); // pass exception object to error handler (i.e. your own function)
}
```

Tratamento de Exceções

finally

```
openMyFile();
try {
  writeMyFile(theData); // This may throw an error
} catch (e) {
  handleError(e); // If an error occurred, handle it
} finally {
  closeMyFile(); // Always close the resource
}
```

Laços

for

```
for (initialization; condition; afterthought)
  statement
```

```
<form name="selectForm">
  <label for="musicTypes"
    >Choose some music types, then click the button below:</label
  >
  <select id="musicTypes" name="musicTypes" multiple>
    <option selected>R&B</option>
    <option>Jazz</option>
    <option>Blues</option>
    <option>New Age</option>
    <option>Classical</option>
    <option>Opera</option>
  </select>
  <button id="btn" type="button">How many are selected?</button>
</form>
```

```
function countSelected(selectObject) {
  let numberSelected = 0;
  for (let i = 0; i < selectObject.options.length; i++) {
    if (selectObject.options[i].selected) {
      numberSelected++;
    }
  }
  return numberSelected;
}

const btn = document.getElementById("btn");

btn.addEventListener("click", () => {
  const musicTypes = document.selectForm.musicTypes;
  console.log(`You have selected ${countSelected(musicTypes)} option(s).`);
});
```

Laços

do...while

```
do
  statement
while (condition);
```

```
let i = 0;
do {
  i += 1;
  console.log(i);
} while (i < 5);
```

Laços

while

```
while (condition)
  statement
```

```
let n = 0;
let x = 0;
while (n < 3) {
  n++;
  x += n;
}
```

```
// Infinite loops are bad!
while (true) {
  console.log("Hello, world!");
}
```

Laços

break e continue

```
for (let i = 0; i < a.length; i++) {
  if (a[i] === theValue) {
    break;
  }
}
```

```
let i = 0;
let n = 0;
while (i < 5) {
  i++;
  if (i === 3) {
    continue;
  }
  n += i;
  console.log(n);
}
```

Laços

break com label

```
let x = 0;
let z = 0;
labelCancelLoops: while (true) {
  console.log("Outer loops:", x);
  x += 1;
  z = 1;
  while (true) {
    console.log("Inner loops:", z);
    z += 1;
    if (z === 10 && x === 10) {
      break labelCancelLoops;
    } else if (z === 10) {
      break;
    }
  }
}
```

Laços

continue com label

```
let i = 0;
let j = 10;
checkiandj: while (i < 4) {
  console.log(i);
  i += 1;
  checkj: while (j > 4) {
    console.log(j);
    j -= 1;
    if (j % 2 === 0) {
      continue checkj;
    }
    console.log(j, "is odd.");
  }
  console.log("i =", i);
  console.log("j =", j);
}
```

Laços

for...in

```
for (variable in object)
  statement
```

```
function dumpProps(obj, objName) {
  let result = "";
  for (const i in obj) {
    result += `${objName}.${i} = ${obj[i]}<br>`;
  }
  result += "<hr>";
  return result;
}
```