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Multidimensional Arrays

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Array of Arrays

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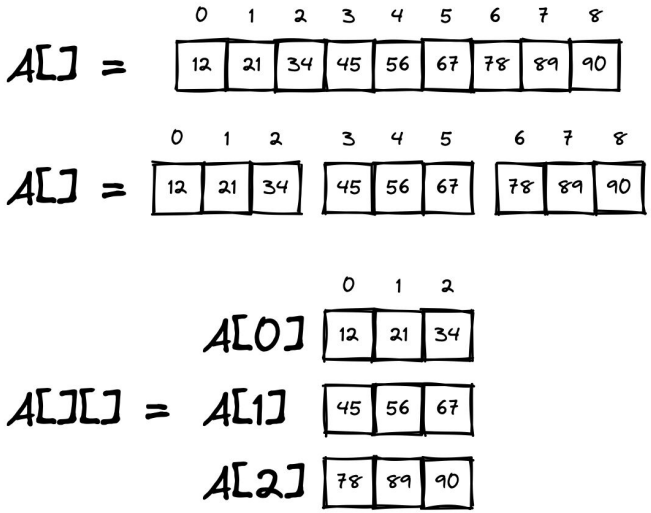

2D Arrays - Rows and Columns

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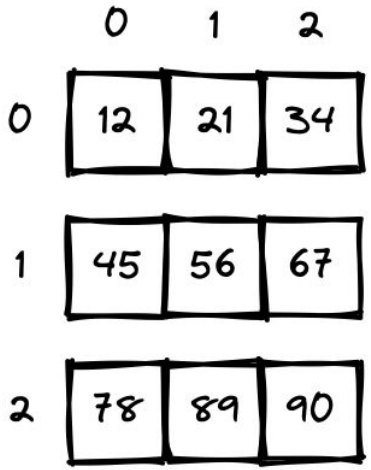

3D Arrays - Rows, Columns and Pages

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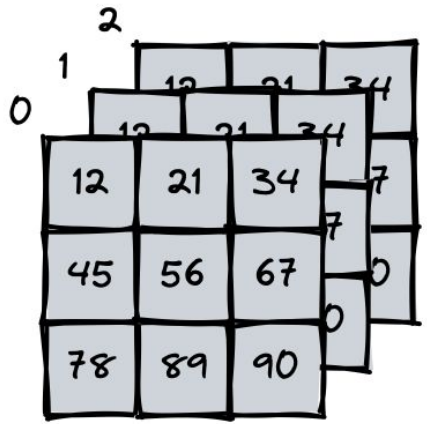
A[][][] =



2D Arrays - Initialisation

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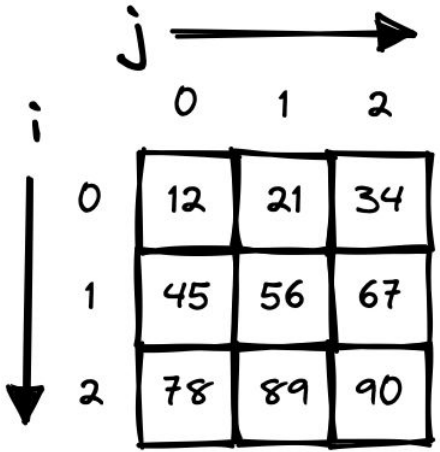
```
const A = [
    [12, 21, 34],
    [45, 56, 67],
    [78, 89, 90]
]
```



2D Arrays - Traversal

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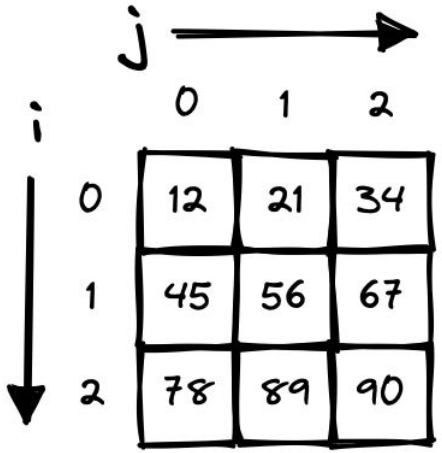
```
function readMatrix(A) {
 for (let i = 0; i < A.length; i++) {
   for (let j = 0; j < A[i].length; j++) {
     console.log(A[i][j]);
   }
 }
}
```



2D Arrays - Operations

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```
function addMatrices(A, B) {
 if (A.length === B.length && A[0].length === B[0].length) {
   const C = [];
   for (let i = 0; i < A.length; i++) {
     C[i] = [];
     for (let j = 0; j < A[i].length; j++) {
       C[i][j] = A[i][j] + B[i][j];
     }
   }
   return C;
 }

 throw new Error("Matrices cannot be added");
}
```