**Here's a TypeScript function for the Tax Deduction Opportunities feature that can calculate potential tax savings related to car financing, mortgages, or other loans, based on various tax-deductible expenses like interest payments, loan fees, and maintenance costs.**

**This function will take into account the specific rules for tax deductions in the Netherlands, where mortgage interest and certain costs related to loans may be tax-deductible, while leasing payments generally are not.**

**Tax Deduction Opportunities Function**

*export* type TaxDeductionResult = {

totalDeductibleAmount: number;

totalTaxSavings: number;

details: {

deductibleInterest: number;

deductibleLoanFees: number;

deductibleMaintenanceCost: number;

};

};

*export* function calculateTaxDeductions(

*totalInterestPaid*: number, *// Total interest paid on a loan or mortgage*

*loanFees*: number, *// Loan-related fees that are tax-deductible*

*annualMaintenanceCost*: number, *// Annual maintenance costs*

*isMortgage*: boolean, *// Whether this is a mortgage (mortgage interest is usually deductible)*

*personalIncomeTaxRate*: number *// The user's personal income tax rate (in percentage)*

): TaxDeductionResult {

*// Deductible interest is only for mortgages or specific loan types*

const deductibleInterest = isMortgage ? totalInterestPaid : 0;

*// Loan fees are often tax-deductible for both mortgages and car loans*

const deductibleLoanFees = loanFees;

*// Maintenance cost might be deductible in some scenarios, like for work-related use of the car (tax laws vary)*

const deductibleMaintenanceCost = annualMaintenanceCost;

*// Calculate total deductible amount*

const totalDeductibleAmount = deductibleInterest + deductibleLoanFees + deductibleMaintenanceCost;

*// Calculate tax savings based on personal income tax rate*

const totalTaxSavings = totalDeductibleAmount \* (personalIncomeTaxRate / 100);

*// Return the result*

*return* {

totalDeductibleAmount: +totalDeductibleAmount.toFixed(2),

totalTaxSavings: +totalTaxSavings.toFixed(2),

details: {

deductibleInterest: +deductibleInterest.toFixed(2),

deductibleLoanFees: +deductibleLoanFees.toFixed(2),

deductibleMaintenanceCost: +deductibleMaintenanceCost.toFixed(2),

},

};

}

**Input Fields:**

* **totalInterestPaid: The total amount of interest paid on a loan or mortgage. In the Netherlands, mortgage interest is tax-deductible, while interest on other loans may not be.**
* **loanFees: Any fees related to obtaining a loan or mortgage, which are often tax-deductible.**
* **annualMaintenanceCost: The annual maintenance costs for a vehicle or property, which might be tax-deductible in specific work-related cases (e.g., self-employed individuals using the car for work purposes).**
* **isMortgage: A boolean flag to indicate if the tax deduction applies to a mortgage (which allows interest deductions).**
* **personalIncomeTaxRate: The user's income tax rate as a percentage. This rate determines how much of the deductible amount will result in actual tax savings.**

**Output Fields (JSON):**

* **totalDeductibleAmount: The total amount of money that can be deducted from taxable income.**
* **totalTaxSavings: The total tax savings calculated based on the user’s income tax rate.**
* **details: A breakdown of the deductible interest, loan fees, and maintenance costs.**

**Example Call:**

const taxDeductions = calculateTaxDeductions(

3000, *// Total interest paid (e.g., for a car loan or mortgage)*

500, *// Loan fees (e.g., origination fees)*

1200, *// Annual maintenance costs*

true, *// This is a mortgage*

37 *// Personal income tax rate (37% in the Netherlands)*

);

console.log(JSON.stringify(taxDeductions, null, 2));

**Example Output:**

{

"totalDeductibleAmount": 4700,

"totalTaxSavings": 1739,

"details": {

"deductibleInterest": 3000,

"deductibleLoanFees": 500,

"deductibleMaintenanceCost": 1200

}

}

**Explanation:**

* **In this example, the user has paid €3,000 in interest (tax-deductible for a mortgage), €500 in loan-related fees, and €1,200 in annual maintenance costs. The total deductible amount is €4,700, and with a personal income tax rate of 37%, the user will save €1,739 in taxes.**

**Use Case for Netherlands Community:**

**This feature can help users understand how tax deductions can reduce their overall loan or financing costs. This is especially important for homeowners with mortgages and self-employed people using vehicles for business purposes, as both categories may have significant tax deduction opportunities.**

**Additional Features:**

**You can enhance this function by adding support for:**

* **Business vs. Personal Use: Different tax deduction rules may apply if the car or home is used for business purposes.**
* **Custom Deductible Expenses: Let users input other deductible expenses such as home office costs or business travel mileage.**