import { Transaction } from '../types';

export function predictMonthlyExpense(transactions: Transaction[]): number {

  const now = new Date();

  const last3MonthsTotals: number[] = [];

  for (let i = 1; i <= 3; i++) {

    const targetDate = new Date(now.getFullYear(), now.getMonth() - i, 1);

    const month = targetDate.getMonth();

    const year = targetDate.getFullYear();

    const monthlyTotal = transactions

      .filter(t => {

        const date = new Date(t.date);

        return (

          date.getMonth() === month &&

          date.getFullYear() === year &&

          t.type === 'expense'

        );

      })

      .reduce((sum, t) => sum + t.amount, 0);

    last3MonthsTotals.push(monthlyTotal);

  }

  const average = last3MonthsTotals.reduce((sum, val) => sum + val, 0) / last3MonthsTotals.length;

  return isNaN(average) ? 0 : Math.round(average);

}