Tools for Working with Excel in Java

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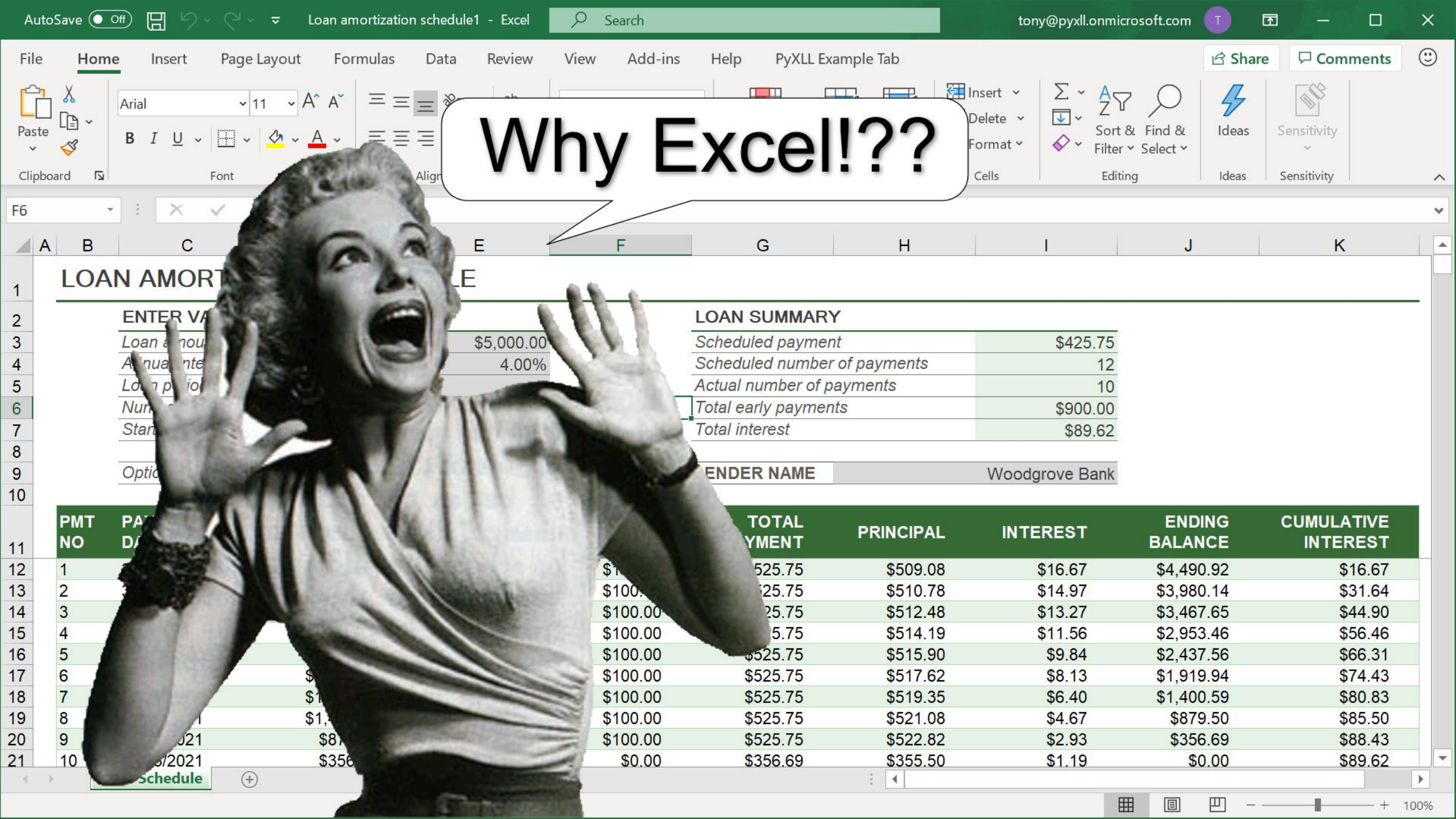

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LOAN AMORT LE

ENTER VA

Loan amou	$5,000.00
Annual inte	4.00%
Loan period	
Num	
Start	
Optio	

LOAN SUMMARY

Scheduled payment	$425.75
Scheduled number of payments	12
Actual number of payments	10
Total early payments	$900.00
Total interest	$89.62
ENDER NAME	Woodgrove Bank

PMT NO	PA DA		TOTAL YMENT	PRINCIPAL	INTEREST	ENDING BALANCE	CUMULATIVE INTEREST
1		$1	525.75	$509.08	$16.67	$4,490.92	$16.67
2		$100.	25.75	$510.78	$14.97	$3,980.14	$31.64
3		$100.00	25.75	$512.48	$13.27	$3,467.65	$44.90
4		$100.00	5.75	$514.19	$11.56	$2,953.46	$56.46
5		$100.00	$525.75	$515.90	$9.84	$2,437.56	$66.31
6	$	$100.00	$525.75	$517.62	$8.13	$1,919.94	$74.43
7	$1	$100.00	$525.75	$519.35	$6.40	$1,400.59	$80.83
8	$1,	$100.00	$525.75	$521.08	$4.67	$879.50	$85.50
9	021	$100.00	$525.75	$522.82	$2.93	$356.69	$88.43
10	/2021	$0.00	$356.69	$355.50	$1.19	$0.00	$89.62

Schedule

100%


May I be of assistance?

Writing Static Excel Reports

- Give users a report already in Excel format
- Save time reformatting compared with CSV reports
- Include multiple sheets in one document
- Can include formulas for basic calculations
- Go crazy with charts and formatting!

Writing Static Excel Reports

Apache POI

https://poi.apache.org/


Automate all the things

Automating Excel

- Excel has a scriptable interface
- Anything that can be done in VBA is available
- It’s called COM!
- Not as scary as you think

Automating Excel

- com4j

  https://github.com/kohsuke/com4j

- Pre-built com4j Excel classes

  https://github.com/exceljava/jinx-com4j


Real heroes write Excel add-ins.

Writing an Excel Add-In

- Give the user tools they need right in Excel
- No importing/exporting of data
- Connect Excel directly to existing systems
- No VBA required!

Writing an Excel Add-In

Jinx (Java In Excel)

https://exceljava.com

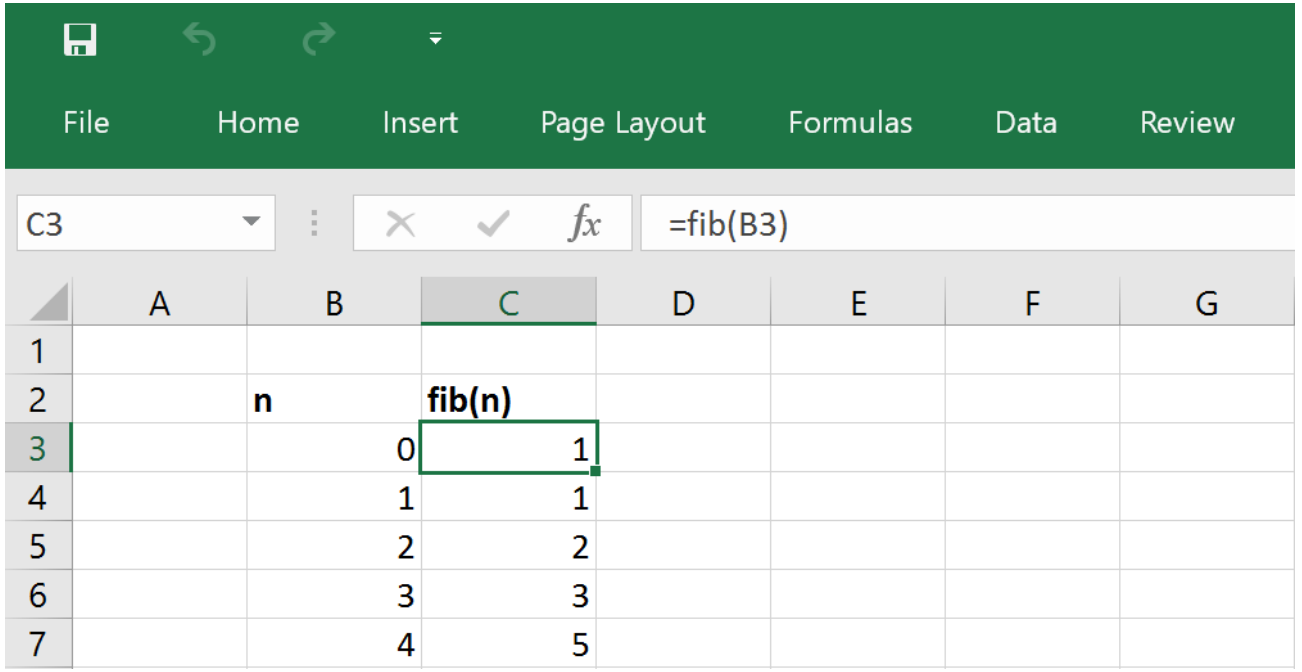
- Worksheet functions (UDFs)
- Real time data
- Macros / Menus / Ribbons / Context menus
- Dynamic Array Functions
- Pass Java objects between Excel functions

Writing an Excel Add-In: Example

```java
import com.exceljava.jinx.ExcelFunction;

class FibonacciExample {
    /**
     * Returns the n-th Fibonacci number where:
     *   fib(0) = 1
     *   fib(1) = 1
     *   fib(n) = fib(n-1) + fib(n-2)
     */
    @ExcelFunction
    public static int fib(int n) {
        if (n < 2) {
            return 1;
        }

        int fib_n1 = 1;
        int fib_n2 = 1;
        for (int i = 2; i <= n; i++) {
            int fib_n = fib_n1 + fib_n2;
            fib_n2 = fib_n1;
            fib_n1 = fib_n;
        }
        return fib_n1;
    }
}
```



Questions?

Slides and Code available at

https://github.com/exceljava/ljc-excel-java-tools-07-2020

Download Jinx from https://exceljava.com

More questions? Email tony@exceljava.com