BUSINESS RULES ENGINE

MONKRULS BRE

AGENDA

- What is a Business Rules Engine?
- Introduction to BRE Engine
- Typical Deployment
- CSV and API Based Rules Engine
- Benefits
- Demo

WHAT IS A RULES ENGINE?

- A rules engine helps standardize and externalize the rules used by the business, from complicated application code

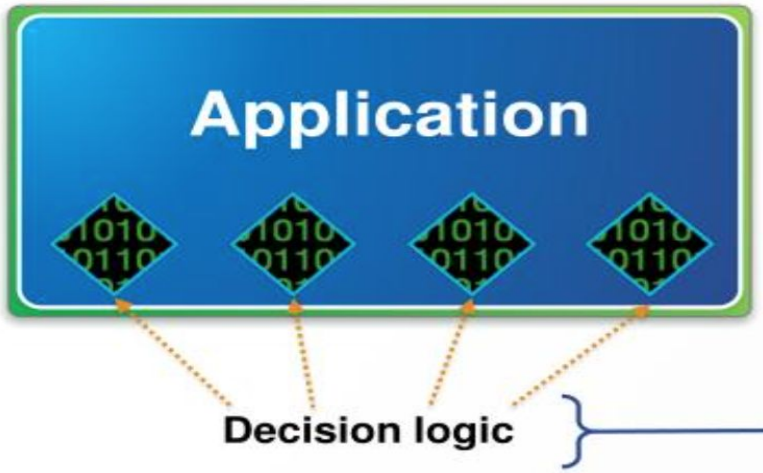
- It helps people with Domain knowledge create the rules, and test and operationalize them.

- It helps in easier management of rules, and rule modifications, without having to touch the application code.

Externalizing decisions from applications into business rules

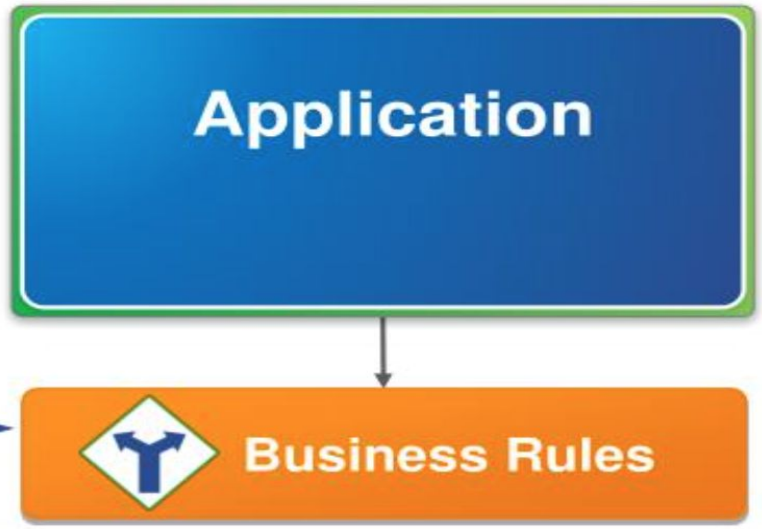
Manage decision logic independently from applications

Without Decision Management



- Rules written in software code cannot be read by business people
- Hard coded rules are difficult to change
- Rules intertwined within applications cannot be reused by other systems

With Decision Management



- Natural language rules can be easily read
- Externalized rules are easy to change
- Centralized rules enable reuse and consistency

RULES REPRESENT BUSINESS POLICIES, PRACTICES AND REGULATIONS

Business Practices

"reason": "Must meet General Education requirements, four of the five pillars",
"condition": "object.counts_ger+object.counts_get >= 2",
"do": "object.meets_general_education_requirements = 'yes'"

Policies

"reason": "CS3219 is required for breadth and depth requirements",
"condition": "object.courses_taken.includes('CS3219')",
"do": "object.meets_depth_policy_1 = 'yes'",

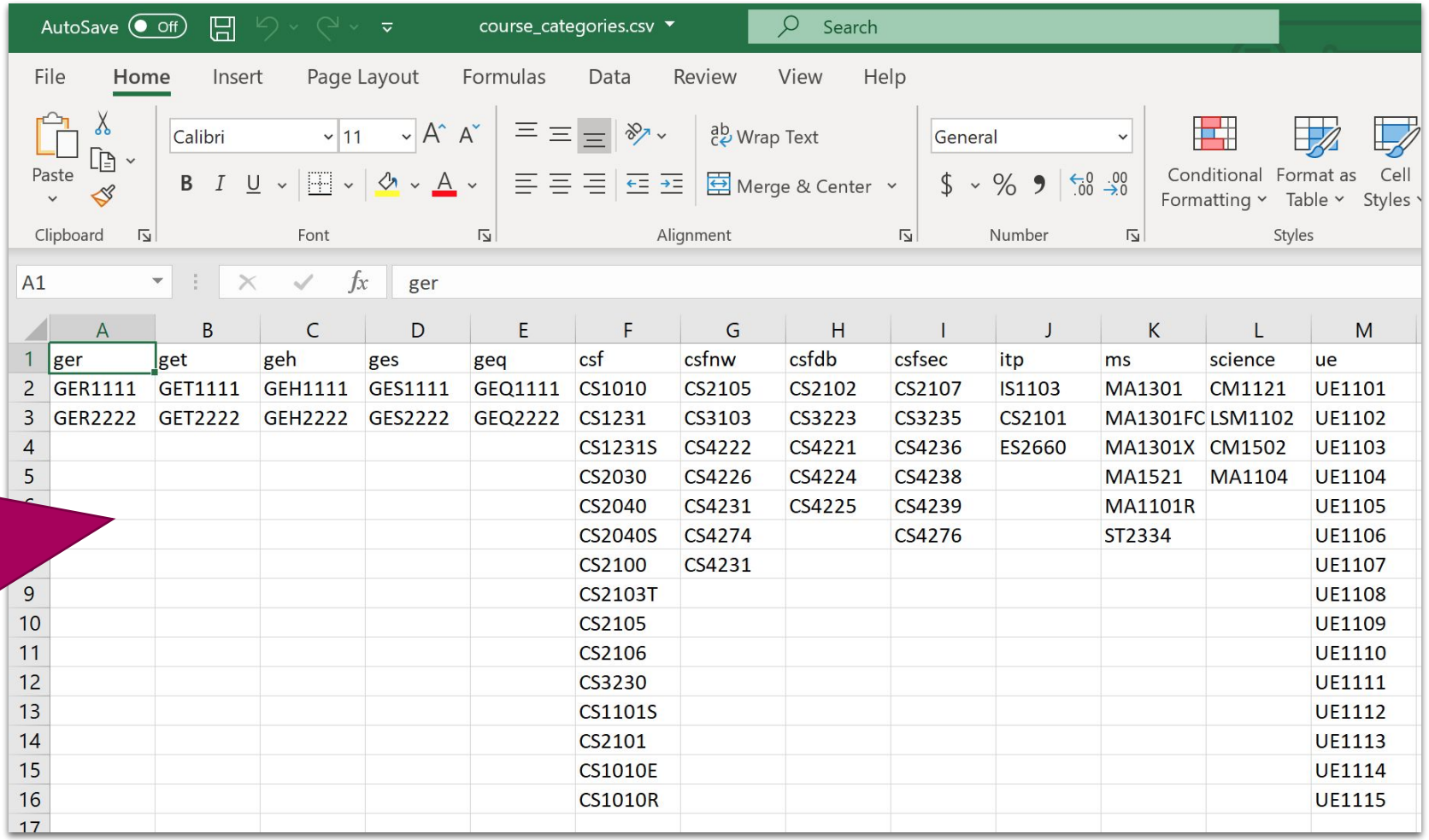
Regulations

"reason": "Unrestricted modules, MCs are less than 28",
"condition": "sum([ue.mcs]) >= 28",
"do": "object.meets_ue_regulations = 'yes'",

TEKMONKS MONKRULS BRE ENGINE

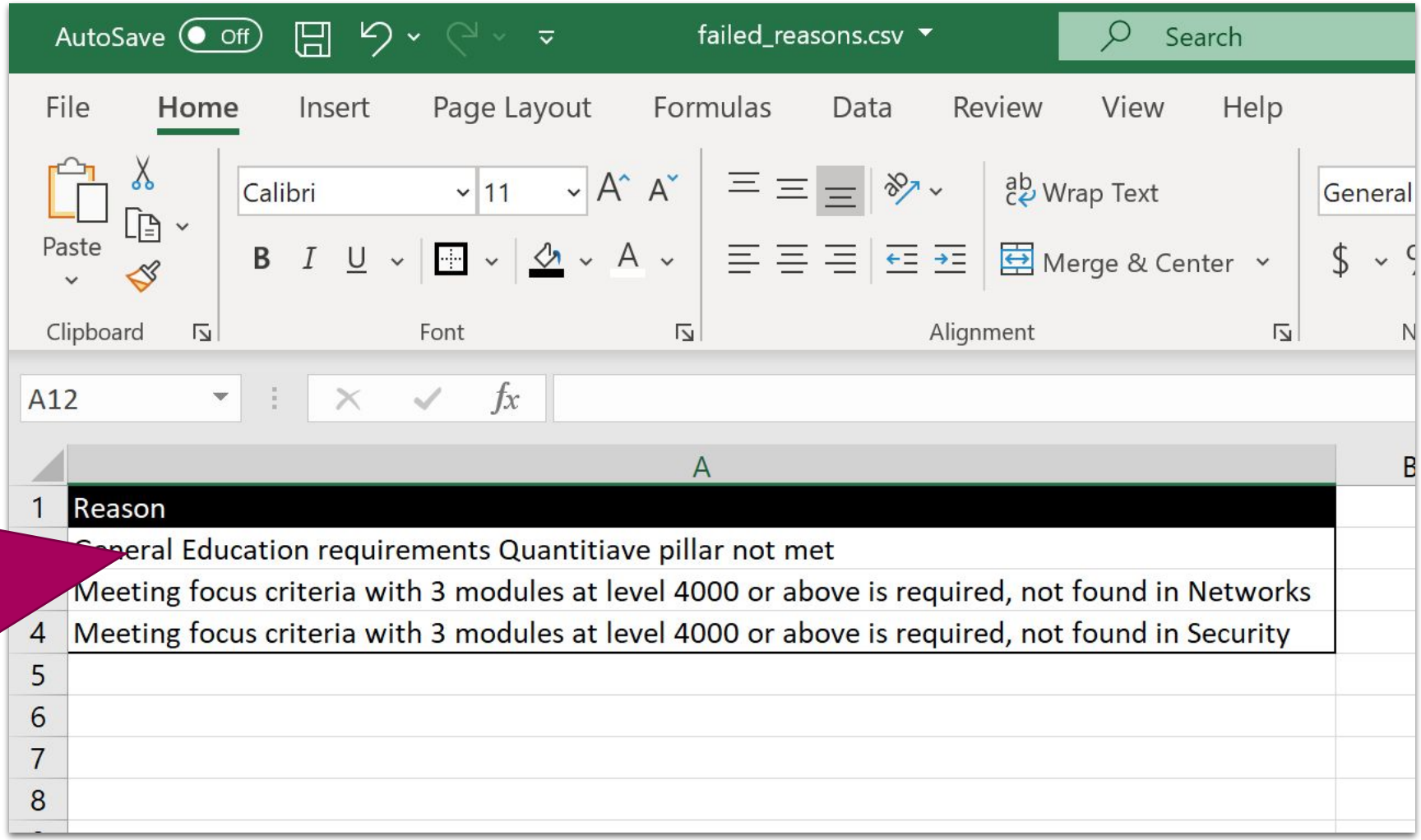
- Allows rules to be created, tested, authored in natural languages and tools.
- Native support for Excel. Inputs, outputs, and rule look up tables can be created in Excel.
- No need to learn a new tool.
- Supports Visual Studio for Rules Authoring environment.
- AI Based decision engine – the only Rules Engine which tells the user why they failed the rules.

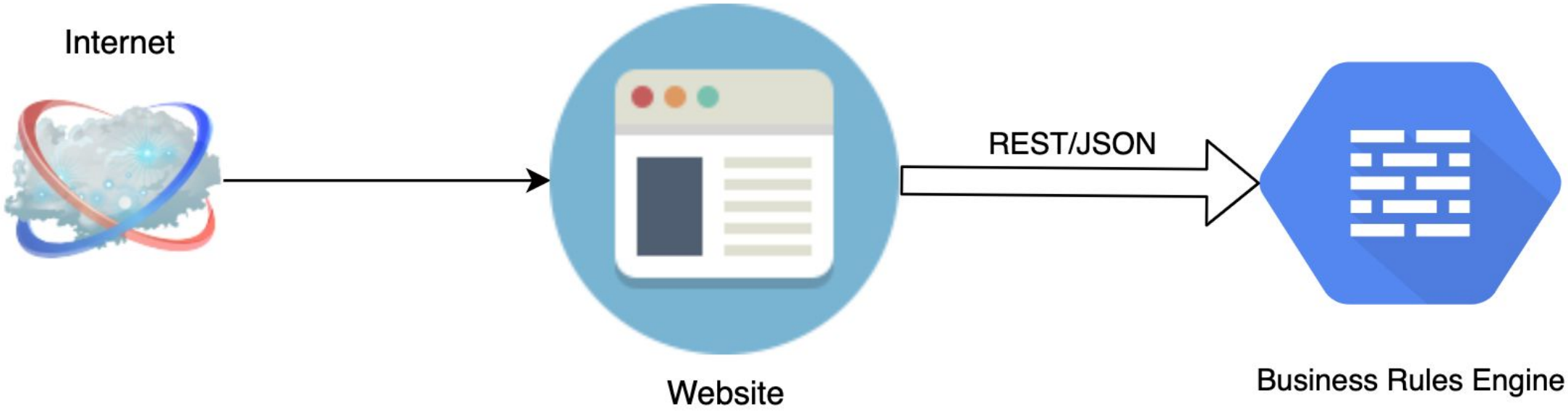
Native support for Excel for Rules Authoring



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ger	get	geh	ges	geq	csf	csfnw	csfdb	csfsec	itp	ms	science	ue
2	GER1111	GET1111	GEH1111	GES1111	GEQ1111	CS1010	CS2105	CS2102	CS2107	IS1103	MA1301	CM1121	UE1101
3	GER2222	GET2222	GEH2222	GES2222	GEQ2222	CS1231	CS3103	CS3223	CS3235	CS2101	MA1301FC	LSM1102	UE1102
4						CS1231S	CS4222	CS4221	CS4236	ES2660	MA1301X	CM1502	UE1103
5						CS2030	CS4226	CS4224	CS4238		MA1521	MA1104	UE1104
						CS2040	CS4231	CS4225	CS4239		MA1101R		UE1105
						CS2040S	CS4274		CS4276		ST2334		UE1106
						CS2100	CS4231						UE1107
9						CS2103T							UE1108
10						CS2105							UE1109
11						CS2106							UE1110
12						CS3230							UE1111
13						CS1101S							UE1112
14						CS2101							UE1113
15						CS1010E							UE1114
16						CS1010R							UE1115
17													

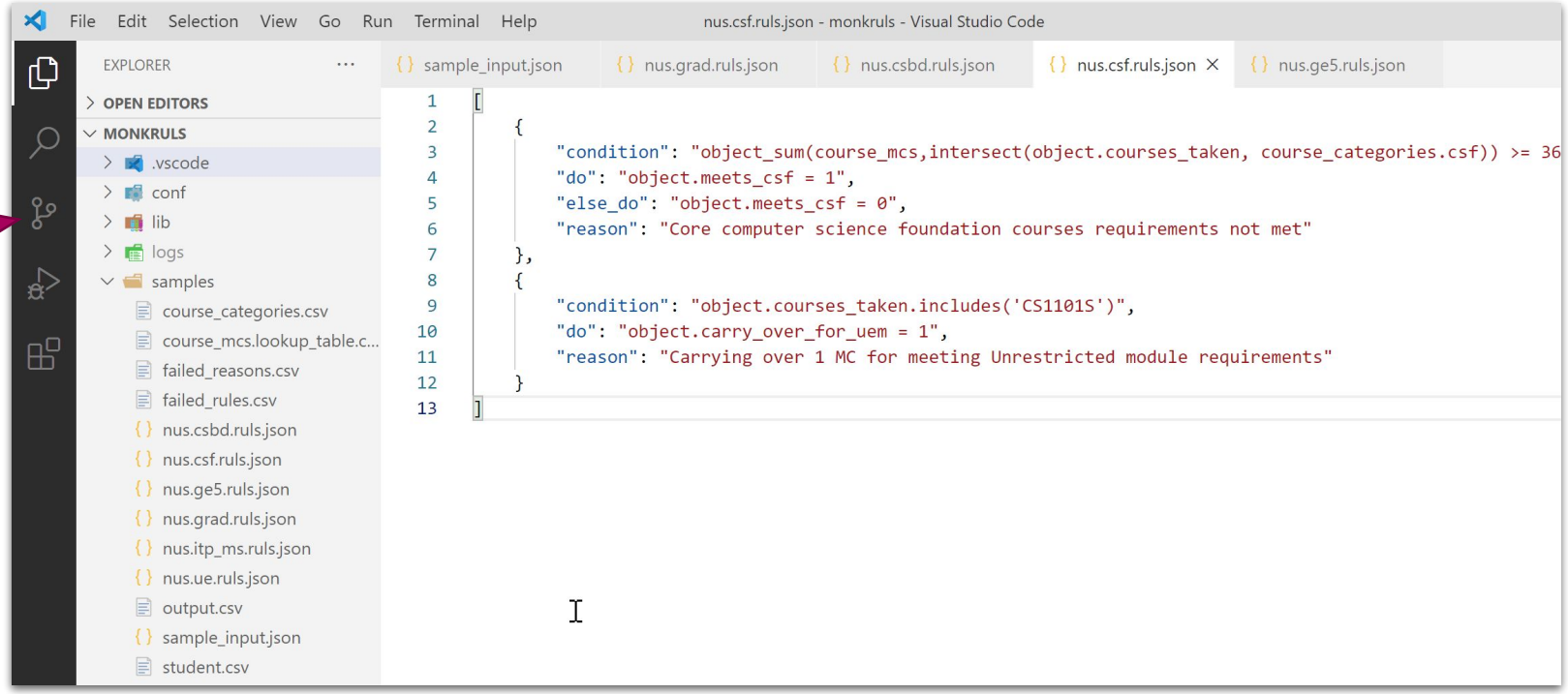
AI Based Reasoning Exported to Excel

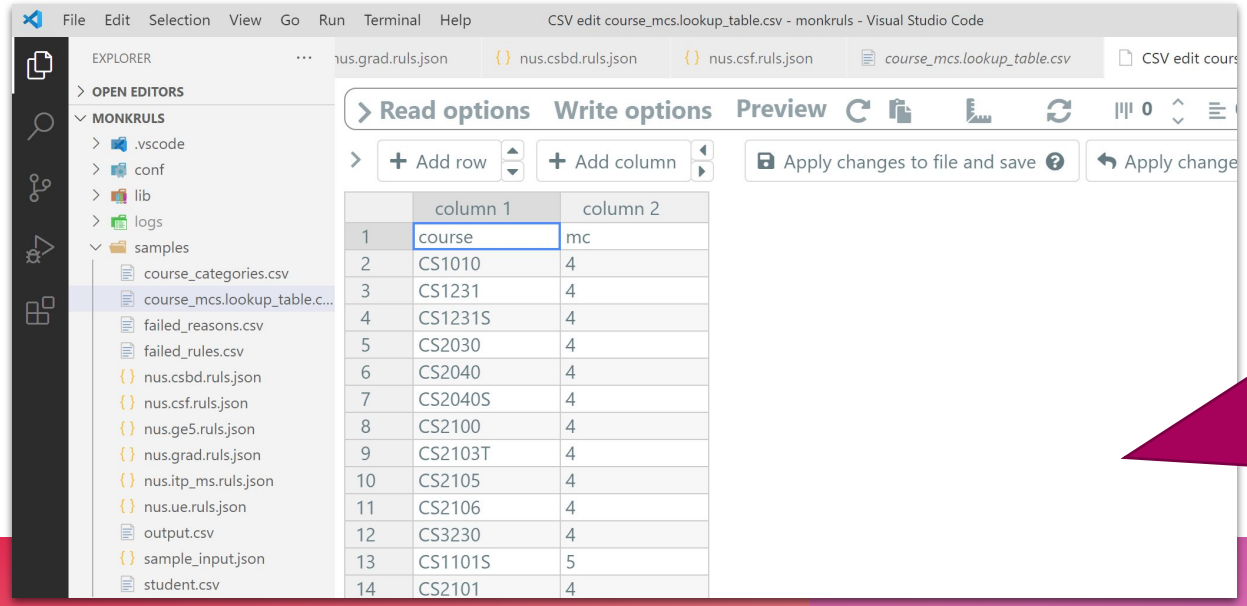




JSON AND REST APIS FOR APPLICATIONS

Visual Studio and Simple JSON For Rules Authoring





If, then analysis and simulations

BENEFITS

- Easily control and stay on top of business policies, decisions, rules.
- AI based inference and rules engine, not just run the rules, but actually understand why the engine made a certain decision.
- English and natural language-based reasoning.
- Easy to use with native support for Excel.
- Easy to integrate with JSON and REST APIs.

DEMO