



DP2 – A+

GATLING EXTRA

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The object of this report is to describe the way we can test a massive number of users posting real data during a stress or load test.

The first step is finding an external tool to generate csv files containing the data for the simulation. In this case, I used mockaroo (<https://www.mockaroo.com/>) which is set up like it follows:

For positive cases generator:

Field Name	Type	Options
<input type="text" value="name"/>	Drug Name (Gener...	blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="maker"/>	Drug Company	blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="expirationDate"/>	Datetime	<input type="text" value="05/26/2019"/> to <input type="text" value="04/08/2022"/> in <input type="text" value="yyyy/mm/dd"/> blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="petType"/>	Custom List	<input type="text" value="cat, dog, lizard, snake, bird, hamster"/> random blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="button" value="Add another field"/>		

Rows: Format: Line Ending: Include: ☒ header ☐ BOM

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For negative cases generator:

Field Name	Type	Options
<input type="text" value="name"/>	Drug Name (Gener...	blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="maker"/>	Drug Company	blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="expirationDate"/>	Datetime	<input type="text" value="04/01/2019"/> to <input type="text" value="03/01/2018"/> in <input type="text" value="yyyy/mm/dd"/> blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="text" value="petType"/>	Custom List	<input type="text" value="cat, dog, lizard, snake, bird, hamster"/> random blank: <input type="text" value="0"/> % <input type="text" value="fx"/> ×
<input type="button" value="Add another field"/>		

Rows: Format: Line Ending: Include: ☒ header ☐ BOM

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Once we have configured our fields with the necessary restrictions, we download the data.

Some entries of the generated file for the positive cases are...

DENSIFLORUM FLOWERING TOP",Hevert Pharmaceuticals LLC,2020/12/07,bird
 benzocaine and menthol,Combe Incorporated,2021/08/27,lizard
 Buspirone Hydrochloride,Dr. Reddy's Laboratories Ltd,2021/02/07,dog
 Sodium chloride,United Exchange Corp,2021/06/07,lizard
 Pumpkin,"Nelco Laboratories, Inc.",2020/11/07,cat
 sodium fluoride,3M ESPE Dental Products,2020/12/19,hamster
 Phentolamine Mesylate,Bedford Laboratories,2020/10/30,hamster
 "Coniferyl alcohol",Apotheca Company,2021/06/07,snake
 "Titanium Dioxide, Zinc Oxide, and Octinoxate",Ventura International LTD.,2020/12/09,lizard
 povidone iodine,CareFusion 213 LLC,2021/12/02,dog
 not applicable,BioActive Nutritional Inc.,2019/08/02,dog
 Allergenic Extracts Alum Precipitated,"ALK-Abello, Inc.",2021/01/23,dog
 Epinastine Hydrochloride,"Breckenridge Pharmaceutical, Inc.",2021/05/30,bird
 Meprobamate,Heritage Pharmaceuticals Inc.,2019/09/08,lizard
 Menthol,U.S.A. AH LLC,2021/07/08,bird
 ATORVASTATIN CALCIUM,Unit Dose Services,2020/09/06,cat
 Captopril,Bryant Ranch Prepack,2021/04/17,cat

... and the negative cases are:

name,maker,expirationDate,type
 Sodium Fluoride,PureTek Corporation,2018/08/23,hamster
 TITANIUM DIOXIDE,"Melaleuca, Inc.",2017/11/20,snake
 lactulose,Cumberland Pharmaceuticals Inc.,2016/10/05,lizard
 divalproex sodium,"Physicians Total Care, Inc.",2019/06/12,snake
 DIMETHICONE,"Lansinoh Laboratories, Inc.",2019/03/24,snake
 Isosorbide Dinitrate,Bryant Ranch Prepack,2017/05/31,snake
 HYDROCORTISONE BUTYRATE,Onset Dermatologics LLC,2017/05/27,lizard
 Acetaminophen,"Physicians Total Care, Inc.",2018/09/02,hamster
 AMLODIPINE BESYLATE,KAISER FOUNDATION HOSPITALS,2019/10/22,bird
 Sodium Chloride,REMEDYREPACK INC.,2017/09/10,hamster
 Diphenhydramine Hydrochloride,"SIMPLY RIGHT (Sam's West, Inc.)",2019/06/24,snake
 Buspirone hydrochloride,State of Florida DOH Central Pharmacy,2019/04/03,lizard
 Ethyl Alcohol,"Soaptronic, LLC",2019/05/10,dog
 Latanoprost,Bausch & Lomb Incorporated,2020/01/04,dog

The sole difference between the documents is the date, which is in the future for the positive cases and in the past for the negative ones.

To use this data, we need to make some changes on the scala script we are going to use the data. Those changes are marked in red:

```

object MedicineCreationFormPositive {
  var feederPositive = csv("MedicineCreationPositive.csv")

  var medicineCreationFormPositive = exec(http("MedicineForm")
    .get("/medicine/create")
    .headers(headers_0)
    .check(css("input[name=_csrf]", "value").saveAs("stoken"))))
  .pause(26)
  .feed(feederPositive)
  .exec(http("MedicineCreated")
    .post("/medicine/create")
    .headers(headers_2)
    .formParam("name", "${name}")
    .formParam("expirationDate", "${expirationDate}")
    .formParam("maker", "${maker}")
    .formParam("petType", "${petType}")
    .formParam("_csrf", "${stoken}"))
  .pause(10)
}

```

The first marked line is for loading the data file, the second one is for reading the values and the last 4 are for inject the read data.

Once we have made those changes, we execute the scripts and we can notice how the database is populated with all the new data:

	id	name	expiration_date	maker	type_id
	1	Cat medicine	2023-05-22	Maker	1
	2	Dog medicine	2023-05-22	Maker	2
	3	benzocaine and menthol	2021-08-26	Combe Incorporated	3
	4	Buspirone Hydrochloride	2021-02-06	Dr. Reddy's Laboratories Ltd	2
	5	Sodium chloride	2021-06-06	United Exchange Corp	3
	6	Pumpkin	2020-11-06	Nelco Laboratories, Inc.	1
	7	sodium fluoride	2020-12-18	3M ESPE Dental Products	6
	8	Phentolamine Mesylate	2020-10-29	Bedford Laboratories	6
	9	Coniferyl alcohol,	2021-06-06	Apotheca Company	4
	10	Titanium Dioxide, Zinc Oxide, and Octinoxate	2020-12-08	Ventura International LTD.	3
	11	povidone iodine	2021-12-01	CareFusion 213 LLC	2
	12	Allergenic Extracts Alum Precipitated	2021-01-22	ALK-Abello, Inc.	2
	13	Epinastine Hydrochloride	2021-05-29	Breckenridge Pharmaceutic...	5
	14	Menthol	2021-07-07	U.S.A. AH LLC	5
	15	ATORVASTATIN CALCIUM	2020-09-05	Unit Dose Services	1
	16	Captopril	2021-04-16	Bryant Ranch Prepack	1
	17	Chloroprocaine Hydrochloride	2022-01-07	General Injectables & Vacci...	3
	18	leflunomide	2022-03-30	Bryant Ranch Prepack	1
	19	rifampin	2020-09-26	Lupin Pharmaceuticals, Inc.	2
	20	MINOXIDIL	2020-11-18	Pure Source Inc.	4
	21	Tridocarbon	2021-08-30	VVF Illinois Services LLC	4
	22	fexofenadine hydrochloride	2021-04-02	PD-Rx Pharmaceuticals, Inc.	6
	23	Aluminum Sesquichlorohydrate	2021-12-19	Ventura Corporation LTD.	3
	24	Paroxetine hydrochloride	2020-10-04	Cardinal Health	6
	25	Labetalol hydrochloride	2022-04-19	Bryant Ranch Prepack	2
	26	Promethazine Hydrochloride	2021-05-30	A-S Medication Solutions LLC	2
	27	Pyrethione Zinc	2020-08-14	Wakefern Food Corp	6
	28	Topiramate	2021-04-21	REMEDYREPACK INC.	6
	29	GLYCERIN	2022-03-03	Happy Sonic Global Co., Ltd.	6
	30	Valproic Acid	2021-05-20	Sun Pharmaceutical Industri...	3
	31	LIDOCAINE HYDROCHLORIDE, MENTHOL	2021-07-27	Pharmaceutics Corporation	4
	32	Dexamethasone	2022-04-20	Cardinal Health	1