Test Data Sets

Using java to generate data based on the tables.

Main Class (generation):

- · Contains the main method for executing the data generation process.
- · Defines arrays for item names, tag names, item sources, recipe types and biomes.
- · Generates data for each entity type (items, tags, etc.) in loops based on the specified length.
- · Writes the generated data to an SQL file named "projects.sql".

Data Generator Class (dataGenerator):

- · Contains nested static classes for different tables and their attributes:
 - Item
 - Item name
 - Stack Limit

		♦ STACKLIMIT
1	Iron Sword	1
2	Iron Ingot	64
3	Wooden Planks	64
4	Sticks	64
5	Raw Beef	64
6	CobbleStone	64
7	Leather	64
8	Cooked Beef	64
9	Leather Boots	1
10	Stone Pickaxe	1
11	Smooth Stone	64
12	Raw Porkchop	64
13	Cooked Porkchop	64
14	Wheat	64
15	Bread	64
16	Iron Ore	64
17	Wooden Log	64

- Tag
 - Tag name



ItemSource

- Source name
- · Item name (Item)
- Chance
- Output quantity

	SOURCENAME		♦ CHANCE	OUTPUTQUANTITY
1	Ingot	Iron Ingot	20	1
2	Stone	CobbleStone	70	1
3	Wood	Wooden Planks	100	4
4	Wood	Sticks	80	2
5	Leather	Leather Boots	100	1
6	Meat	Cooked Beef	80	1
7	Pickaxe	Stone Pickaxe	100	1
8	Sword	Iron Sword	100	1
9	Meat	Cooked Porkchop	100	1
10	Grain	Bread	90	1

Recipe

- Source name (ItemSource)
- Item name (Item)
- · Recipe type

	SOURCENAME	♦ ITEMNAME	
1	Wood	Wooden Planks	Crafting
2	Wood	Sticks	Crafting
3	Leather	Leather Boots	Crafting
4	Meat	Cooked Beef	Smelting
5	Meat	Cooked Porkchop	Smelting
6	Grain	Bread	Crafting
7	Sword	Iron Sword	Crafting
8	Pickaxe	Stone Pickaxe	Crafting

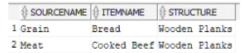
Mining

- Source name (ItemSource)
- Item name (Item)

	SOURCENAME	⊕ ITEMNAME	
1	Ingot	Iron Ingot	
2	Stone	CobbleStone	

Chest

- · Source name (ItemSource)
- Item name (Item)
- Structure



Location

- · Source name (ItemSource)
- Item name (Item)
- Depth
- Biome

	§ SOURCENAME	() ITEMNAME	() DEPTH	BIOME
1	Ingot	Iron Ingot	50	Underground
2	Stone	CobbleStone	100	Underground
3	Grain	Bread	50	Grass

ItemToTag

- . Item name (Item)
- Tag name (Tag)

⊕ ETEMNAME	⊕ TAGNAME
1 Bread	Food
2 CobbleStone	Block
3 Cooked Beef	Food
4 Cooked Porkchop	Food
5 Iron Ingot	Material
6 Iron Sword	Tool
7 Leather	Material
8 Leather Boots	Armour
9 Raw Beef	Food
10 Raw Porkchop	Food
11 Smooth Stone	Block
12 Sticks	Material
13 Stone Pickaxe	Tool
14 Wheat	Food
15 Wooden Planks	Material

Input

- · Source name (ItemSource)
- . Input item name (Item)
- · Output item name (Item)
- Recipe type (Recipe)

	♦ SOURCENAME	⊕ OUTPUTITEMNAME	⊕ INPUTITEMNAME	RECIPETYPE
1	Wood	Wooden Planks	Wooden Log	Crafting
2	Wood	Sticks	Wooden Planks	Crafting
3	Leather	Leather Boots	Leather	Crafting
4	Meat	Cooked Beef	Raw Beef	Smelting
5	Meat	Cooked Porkchop	Raw Porkchop	Smelting
6	Grain	Bread	Wheat	Crafting
7	Pickaxe	Stone Pickaxe	Smooth Stone	Crafting
8	Sword	Iron Sword	Iron Ore	Crafting

BlockToMine

- · Source name (ItemSource)
- · Input item name (Item)
- · Output item name (Item)

	SOURCENAME	♦ OUTPUTTTEMNAME	♦ INPUTITEMNAME
1	Ingot	Iron Ingot	Iron Ore
2	Stone	CobbleStone	Smooth Stone

Large Dataset Generation

- · Required a naming algoritm for item names to ensure unique names and random generation of other attributes.
- Item
 - · Each item is generated with a unique name to avoid duplicates
 - · Stack limit for each item is randomly assigned

	♦ ITEMNAME	
1	KAW436	9
2	KLL428	15
3	GCW793	29
4	RQS216	62
5	GJQ508	57
6	MIV943	29
7	QFA057	32
8	XFI581	49
9	DFG163	27
10	TKX505	41
11	JLV931	49
12	RR0494	37
13	ZXM806	55
14	WWN749	60
15	KWH846	4
16	ZMZ313	41
17	AUQ115	46
18	BSR819	58
19	PRX153	31
20	CYM188	56

Tag

· Tags are generated based on predefined tag names.

	3 3
	TAGNAME
1	Armour
2	Block
3	Building Materials
4	Decorations
5	Food
6	Ore
7	Potions
8	Redstone
9	Tool
10	Weapon

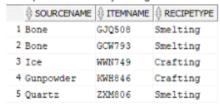
ItemSource

- · Each item is generated with a randomly selected source name
- · Chance for each item is randomly assigned
- · Output quantity for each item is randomly assigned

	SOURCENAME	♦ ITEMNAME	♦ CHANCE	OUTPUTQUANTITY
1	Snow	KAW436	2	7
2	Clay	KLL428	6	1
3	Bone	GCW793	83	1
4	Gunpowder	RQS216	53	3
5	Bone	GJQ508	61	1
6	Bone	MIV943	12	6
7	Sand	QFA057	35	1
8	Glowstone	XFI581	51	6
9	Gravel	DFG163	67	3
10	Ice	TKX505	7	1
11	Quartz	JLV931	32	1
12	Gunpowder	RR0494	53	7
13	Quartz	ZXM806	14	5
14	Ice	WWN749	33	3
15	Gunpowder	KWH846	57	2
16	Sand	ZMZ313	83	7
17	Dirt	AUQ115	16	6
18	Cobblestone	BSR819	18	1
19	Quartz	PRX153	64	2
20	Snow	CYM188	54	7

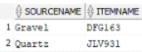
Recipe

- · Some items with its source name are assigned a recipe type
- · Recipe is randomly assigned as either "Smelting" or "Crafting"



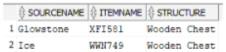
· Mining

· Some items with its source name are considered "mine-able" items



Chest

- · Some items with its source name are put into a chest
- · Structure explains the chests make



Location

- · Each item and its source name are assigned a depth and biome
- · Depth describes the block level that the item can be found
- · Biome describes the environment that the item can be found

	SOURCENAME	⊕ ITEMNAME	DEPTH ■	BIOME
1	Snow	KAW436	22	River
2	Clay	KLL428	137	Desert
3	Bone	GCW793	22	Crimson Forest
4	Gunpowder	RQS216	77	Badlands
5	Bone	GJQ508	60	Beach
6	Bone	MIV943	57	Ocean
7	Sand	QFA057	104	Birch Forest
8	Glowstone	XFI581	169	Taiga
9	Gravel	DFG163	176	Plains
10	Ice	TKX505	20	Frozen River
11	Quartz	JLV931	179	Warm Ocean
12	Gunpowder	RR0494	137	Ice Spikes
13	Quartz	ZXM806	112	Mushroom Fields
14	Ice	WWN749	42	Ocean
15	Gunpowder	KWH846	36	Ocean
16	Sand	ZMZ313	69	Beach
17	Dirt	AUQ115	106	Snowy Tundra
18	Cobblestone	BSR819	196	Taiga
19	Quartz	PRX153	172	Crimson Forest
20	Snow	CYM188	115	Frozen Ocean

ItemToTag

- · Each item is assigned with a randomly selected Tag name
- Tag name is a set list of tags to describe items
 TEMNAME | TAGNAME

	₹ ITEMNAME	TAGNAME	
1	AUQ115	Building Materials	
2	BSR819	Potions	
3	CYM188	Tool	
4	DFG163	Potions	
5	GCW793	Tool	
6	GJQ508	Potions	
7	JLV931	Tool	
8	KAW436	Potions	
9	KLL428	Block	
10	KWH846	Block	
11	MIV943	Potions	
12	PRX153	Block	
13	QFA057	Armour	
14	RQS216	Redstone	
15	RRO494	Weapon	
16	TKX505	Block	
17	WWN749	Block	
18	XFI581	Food	
19	ZMZ313	Block	
20	ZXM806	Redstone	

• BlockToMine

- · Each item from Mining is assigned an input item
- The input item is an existing item
- o Some items remain unchanged after

	SOURCENAME	⊕ OUTPUTITEMNAME	
1	Gravel	DFG163	CYM188
2	Quartz	JLV931	JLV931