# DBMS PROJECT LEV&MISSLE AERIAL DEFENCE CUSTOMERS DEPARTMENT

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# TABLE OF CONTENTS

•	Company description	•	3-4
•	ERD for each entity	•	5-10
•	Department relationships	•	11
•	Department ERD	•	12
•	DSD & 3NF explanation	•	13-14
•	Create table SQL	•	15
•	Desc instruction	•	16-22
•	PL/SQL tables realization diagram	•	23
•	Data generator for each table	•	24-30
•	Text import generator for each table	•	31-37
•	Excel using mockaroo.com for each table	•	38-45
•	Select table SQL	•	46
•	Insert tables SQL	•	47
•	Drop table SQL	•	48
•	Git explanation	•	49
•	Backup explanation	•	50-51

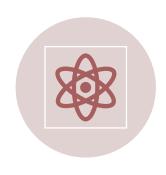


# A LITTLE BIT ABOUT OUR COMPANY...





"Lev&Missle Aerial Defence" is a cutting-edge company leading the marketplace in Aerial Defense & Missiles.



We specialize in cutting-edge missile systems and defense solutions, protecting nations and critical infrastructure worldwide.



Our products include advanced interceptors, radar systems, and command solutions, ensuring precision and peace of mind in airspace security."



Our customers are always satisfied with our great quality and precision.



# A LITTLE BIT ABOUT OUR COMPANY STRUCTURE





Our company is comprised of four major departments: Production, Marketing, Human Resources, and Customer Relations. Each department includes at least six subdivisions that ensure the highest quality of work is achieved and maintained.



In this chapter, we will focus on the Customer Relations department and its associated entities.





#### 1) Customer

#### Attributes:

CustomerID: Unique customer identifier

Name: Country or project

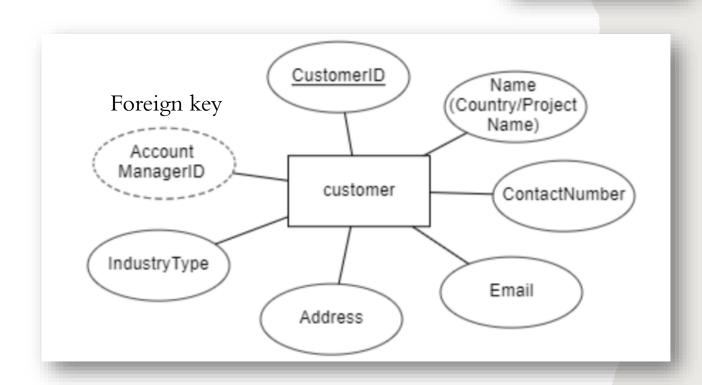
Contact Number: Customer's phone number

Email: Customer's email address

Address: Customer's physical location

IndustryType: Customer's business sector

AccountManagerID: Linked account manager







#### 2) Account Manager

Attributes:

AccountManagerID: Unique manager identifier

Name: Manager's full name

Email: Manager's email address

Phone: Manager's contact number

Department: Manager's assigned division

Account ManagerID Foreign key Name SupervisorID Account Manager Email Department Phone

(SupervisorID: Linked supervisor identifier)-not included





#### 3)Order

#### Attributes:

OrderID: Unique order identifier

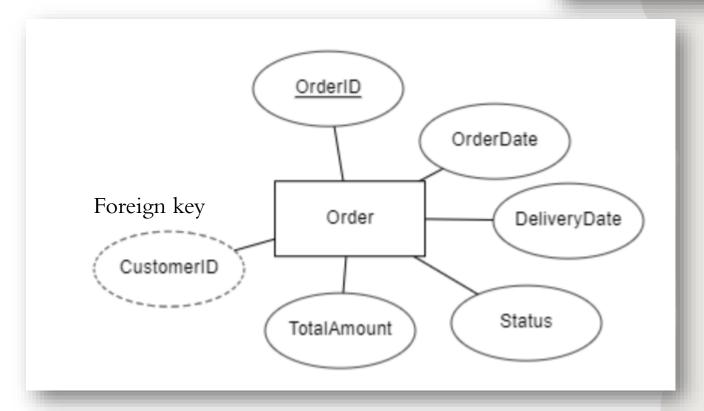
OrderDate: Date of order

DeliveryDate: Date of delivery

Status: Order current status

CustomerID: Linked customer identifier

TotalAmount: Order total cost







#### 4) Product

#### Attributes:

ProductID: Unique product identifier

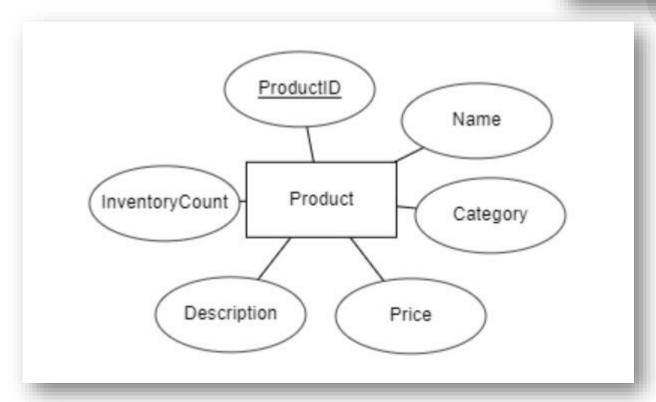
Name: Product's name

Category: Product's classification

Price: Product's selling price

Description: Product's detailed information

InventoryCount: Available product quantity







#### 5)Payment

Attributes:

Payment: Unique payment identifier

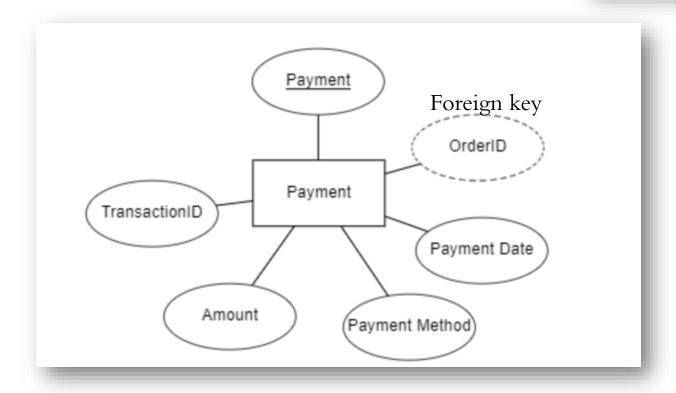
OrderID: Linked order identifier

Payment Date: Date of payment

Payment Method: Payment type used

Amount: Payment total amount

TransactionID: Payment transaction identifier







#### 6)Support Ticket

#### Attributes:

TicketID: Unique ticket identifier

CustomerID: Linked customer identifier

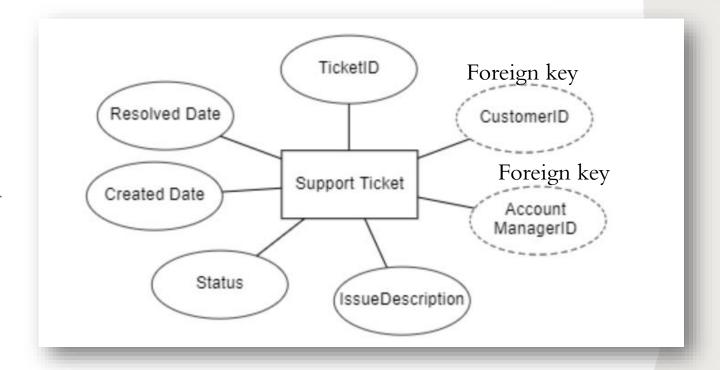
AccountManagerID: Linked manager identifier

IssueDescription: Problem details summary

Status: Current ticket state

Created Date: Ticket creation date

Resolved Date: Issue resolution date







#### Relationships:

1) Customer - Account Manager:

Each Customer is assigned to one Account Manager.
One Account Manager can manage multiple Customers.
Relationship: One-to-Many

2) Customer - Order:

Each Customer can place multiple Orders. Each Order is placed by one Customer. Relationship: **One-to-Many** 

3)Order - Product:

Each Order can contain multiple Products.

Each Product can be part of multiple Orders.

Relationship: Many-to-Many



4)Order - Payment:

Each Order can have multiple Payments.
Each Payment is associated with one Order.
Relationship: One-to-Many

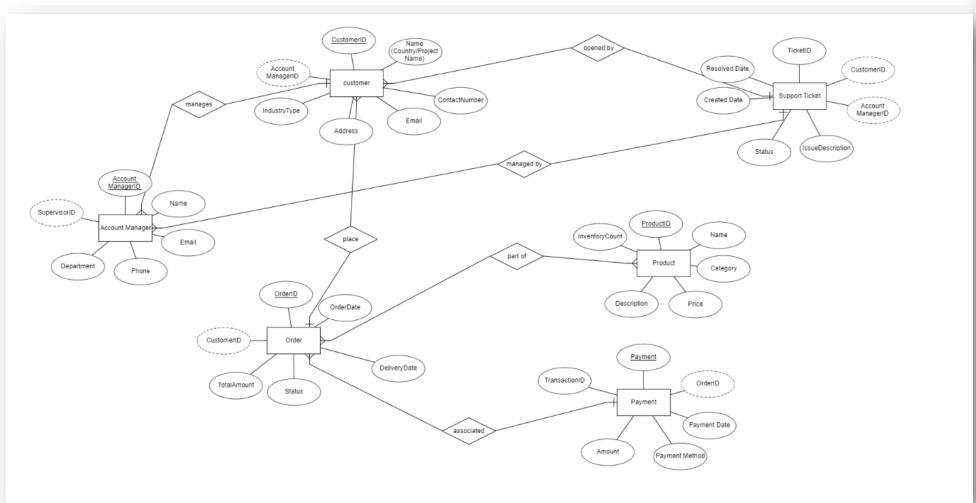
5) Customer - Support Ticket:

Each Customer can open multiple Support Tickets. Each Support Ticket is opened by one Customer. Relationship: **One-to-Many** 

6)Account Manager - Support Ticket:

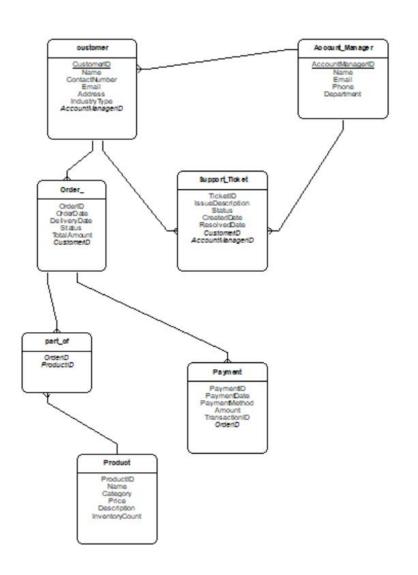
Each Support Ticket can be managed by one Account Manager. One Account Manager can manage multiple Support Tickets. Relationship: **One-to-Many** 











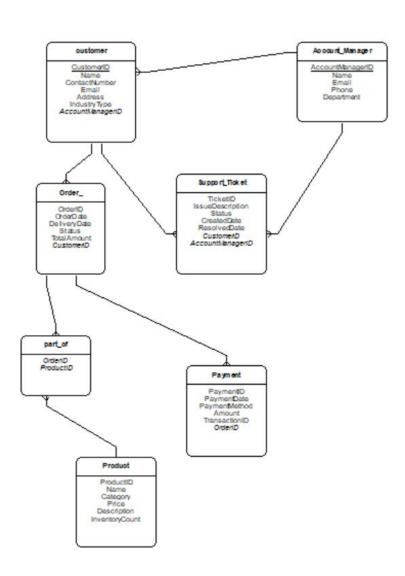
Better view of the DSD file: DSD VIEW

# Summary:

Customer interacts with Account Manager, places
Order, and can create Support Ticket.
Order includes Product and has related Payment.
Support Ticket is handled by Account Manager.
This structure covers the key components and interactions within the customer department of our aerial defense and missiles manufacturing company.







## 3NF NORMALIZATION:

Each schema adheres to the rules of 3NF:

**1NF:** All attributes are atomic.

**2NF:** There are no partial dependencies

**3NF:** No transitive dependencies; every non-key

attribute depends only on the primary key.

Ensuring that all attributes are dependent only on the primary key of their respective tables, with no transitive dependencies. This design effectively supports the requirements of the DBMS project.



### SQL CODE: CREATE TABLES

CREATE TABLE Account\_Manager ( AccountManagerID NUMBER(38)

NOT NULL, Name VARCHAR2(255) NOT NULL, Email VARCHAR2(255)

NOT NULL, Phone VARCHAR2(20) NOT NULL, Department

VARCHAR2(255) NOT NULL, CONSTRAINT pk\_Account\_Manager

PRIMARY KEY (AccountManagerID) ) /

CREATE TABLE Product ( ProductID NUMBER(38) NOT NULL, Name VARCHAR2(255) NOT NULL, Category VARCHAR2(255) NOT NULL, Price NUMBER(10, 2) NOT NULL, Description VARCHAR2(4000) NOT NULL, InventoryCount NUMBER(38) NOT NULL, CONSTRAINT pk\_Product PRIMARY KEY (ProductID) ) /

CREATE TABLE Customer ( CustomerID NUMBER(38) NOT NULL, Name VARCHAR2(255) NOT NULL, ContactNumber VARCHAR2(20) NOT NULL, Email VARCHAR2(255) NOT NULL, Address VARCHAR2(4000) NOT NULL, IndustryType VARCHAR2(255) NOT NULL, AccountManagerID NUMBER(38) NOT NULL, CONSTRAINT pk\_Customer PRIMARY KEY (CustomerID), CONSTRAINT fk\_Customer FOREIGN KEY (AccountManagerID) REFERENCES Account\_Manager (AccountManagerID) ON DELETE CASCADE ) /

CREATE TABLE Order\_ ( OrderID NUMBER(38) NOT NULL,
OrderDate DATE NOT NULL, DeliveryDate DATE NOT NULL,
Status VARCHAR2(50) NOT NULL, TotalAmount NUMBER(10, 2)
NOT NULL, CustomerID NUMBER(38), CONSTRAINT pk\_Order\_
PRIMARY KEY (OrderID), CONSTRAINT fk\_Order\_ FOREIGN KEY
(CustomerID) REFERENCES Customer (CustomerID) ) / -- --



#### Full code+documentation

CREATE TABLE Payment ( PaymentID NUMBER(38) NOT NULL, PaymentDate DATE NOT NULL, PaymentMethod VARCHAR2(50) NOT NULL, Amount NUMBER(10, 2) NOT NULL, TransactionID VARCHAR2(50) NOT NULL, OrderID NUMBER(38), CONSTRAINT pk\_Payment PRIMARY KEY (PaymentID), CONSTRAINT fk\_Payment FOREIGN KEY (OrderID) REFERENCES Order\_ (OrderID) ) /

CREATE TABLE Support\_Ticket ( TicketID NUMBER(38) NOT NULL, IssueDescription VARCHAR2(4000) NOT NULL, Status VARCHAR2(50) NOT NULL, CreatedDate DATE NOT NULL, ResolvedDate DATE, CustomerID NUMBER(38), AccountManagerID NUMBER(38), CONSTRAINT pk\_Support\_Ticket PRIMARY KEY (TicketID), CONSTRAINT fk\_Support\_Ticket FOREIGN KEY (CustomerID) REFERENCES Customer (CustomerID), CONSTRAINT fk\_Support\_Ticket2 FOREIGN KEY (AccountManagerID) REFERENCES Account\_Manager (AccountManagerID) ) /

CREATE TABLE part\_of ( OrderID NUMBER(38) NOT NULL,
ProductID NUMBER(38) NOT NULL, CONSTRAINT pk\_part\_of
PRIMARY KEY (OrderID, ProductID), CONSTRAINT fk\_part\_of
FOREIGN KEY (OrderID) REFERENCES Order\_ (OrderID) ON
DELETE CASCADE, CONSTRAINT fk\_part\_of2 FOREIGN KEY
(ProductID) REFERENCES Product (ProductID) )/





SQL> DESC ACCOUNT_MANAGER Name	Null?	Туре
ACCOUNTMANAGERID NAME EMAIL PHONE DEPARTMENT	NOT NULL NOT NULL NOT NULL	NUMBER(38) VARCHAR2(255) VARCHAR2(255) VARCHAR2(20) VARCHAR2(255)





SQL> desc CUSTOMERS Name	Null?	Туре
CUSTOMERID	NOT NULL	NUMBER(38)
NAME	NOT NULL	VARCHAR2(255)
CONTACTNUMBER	NOT NULL	VARCHAR2(20)
EMAIL	NOT NULL	VARCHAR2(255)
ADDRESS	NOT NULL	VARCHAR2(4000)
INDUSTRYTYPE	NOT NULL	VARCHAR2(255)
ACCOUNTMANAGERID	NOT NULL	NUMBER(38)





SQL> DESC SUPPORT_TICKET Name	Null?	Туре
TICKETID ISSUEDESCRIPTION STATUS CREATEDDATE RESOLVEDDATE CUSTOMERID ACCOUNTMANAGERID	NOT NULL	NUMBER(38) VARCHAR2(4000) VARCHAR2(50) DATE DATE NUMBER(38) NUMBER(38)





SQL> DESC AIR_ORDER Name	Null?	Туре
ORDERID ORDERDATE DELIVERYDATE STATUS TOTALAMOUNT CUSTOMERID	NOT NULL NOT NULL NOT NULL	





SQL> desc PRODUCT		
Name 	Null?	Туре
PRODUCTID	NOT NULL	NUMBER(38)
NAME	NOT NULL	VARCHAR2(255)
CATEGORY	NOT NULL	VARCHAR2(255)
PRICE	NOT NULL	NUMBER(10,2)
DESCRIPTION	NOT NULL	VARCHAR2(4000)
INVENTORYCOUNT	NOT NULL	NUMBER(38)





SQL> DESC PAYMENT Name	Null?	Туре
PAYMENTID PAYMENTDATE PAYMENTMETHOD AMOUNT TRANSACTIONID ORDERID	NOT NULL NOT NULL NOT NULL	NUMBER(38) DATE VARCHAR2(50) NUMBER(10,2) VARCHAR2(50) NUMBER(38)



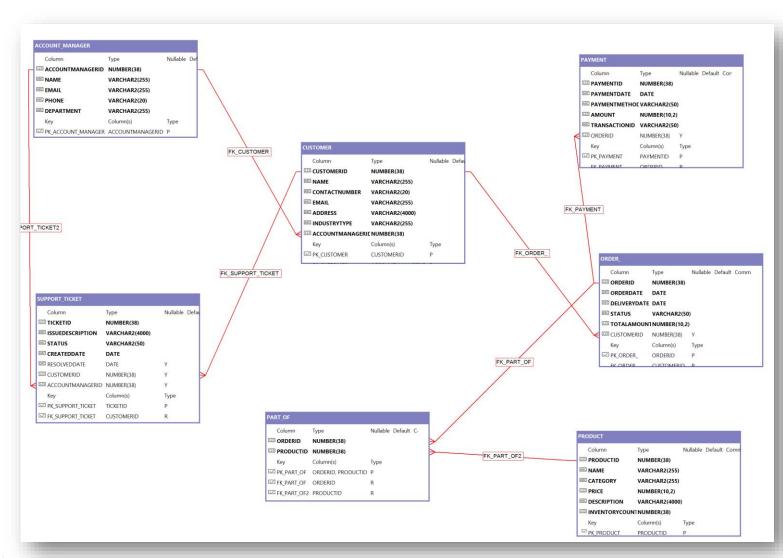


SQL> DESC PART_OF Name	Null?	Туре
ORDERID PRODUCTID		 NUMBER(38) NUMBER(38)



# CREATE TABLES: REALIZATION IN PL/SQL





Better view of the Diagram: TABLES



# DATA GENERATOR: ACCOUNT MANAGER



	<	< O	wner		Table						Number o	of rec	ords					
	>	> S	YS	~	ACCOUNT_N	ΛAI	NAGER			~	1020							
		 Nam	e	Туре	<u></u>		Size		Data								Master	
			OUNTMANAGERID			▼ :		_		000	00000, 9999	9999	9)					
		NAM				_	255		FirstName				,				•••	
		EMA	IL	VAR	RCHAR2	* 2	255	<b></b>	Email								•••	
		PHO	NE	VAR	RCHAR2	¥ 2	20	-	0+5+Rand	lom	10000000	, 999	99999)				•••	
	<b>•</b>	DEP	ARTMENT	VAR	RCHAR2	* 2	255	<b>1</b>	List('mossa	ıd',	'ministry of	f defe	ence', 'sh <mark>abak</mark> ' ,	, 'id	df' , 'refael')		•••	
ACCOUNTM	₩ MANAGERI	il ID 🔲	NAME	EM	ИAIL	•		•			PHONE	DEP	PARTMENT	F	ROWID		•••	
	3456	6721	DavisBuscemi	··· da	vis.buscemi@m	nast	ercardint	erna	tional.uk	•••	50060184 "	" idf			AAAS+yAABAAAp4xAAA			
	8588	4778	ValBorden	··· val	l.borden@danc	or.c	om			•••	46694802 "	" mo	ssad		AAAS+yAABAAAp4xAAB			
	6811	0990	RuthSarandon	··· rut	th.sarandon@er	ntel	igence.co	om		•••	62486956 "	" refa	iel		AAAS+yAABAAAp4xAAC			
	6934	8183	BrianConners	··· bri	ian.c@pulaskifir	nano	ial.il			•••	37810149 "	" min	nistry of defence		AAAS+yAABAAAp4xAAD			
	9517	3305	Johnette Diddley	··· joh	hnette.diddley@	ksj	.uk			•••	13474322 "	" refa	iel		AAAS+yAABAAAp4xAAE			
	4454	3774	BozBailey	··· bo	ozb@sms.se					•••	81968201 "	" idf			AAAS+yAABAAAp4xAAF			
	9128	9020	WalterBurton	··· wa	alter.b@mwh.co	m				•••	63894756 "	" min	nistry of defence		AAAS+yAABAAAp4xAAG			
	7470	9883	AlessandroGambon	··· ale	essandro.gambo	on@	genexte	chno	ologies.com	•••	73224472 "	" idf			AAAS+yAABAAAp4xAAH			
	7059	7847	LarnelleMars	··· ları	nelle@dcgroup	.es				•••	95983953 "	" refa	iel		AAAS+yAABAAAp4xAAI			
	5695	5700	DebiMakeba	··· de	ebi.makeba@trip	owi	e.nl			•••	26751008 "	" refa	iel	/	AAAS+yAABAAAp4xAAJ			
	7398	6708	BobbiGoldberg	••• b.g	goldberg@hited	hpl	narmacal	.com	1	***	20217028 "	" mo	ssad	•••	AAAS+yAABAAAp4xAAK			
				•••						•••		••		•••				



# DATA GENERATOR: CUSTOMER



		<	Owner	I	Table				Number of records				
		>	SYS	· (	CUSTOMER			~	1020				
		N	ame	Туре		Size	Dat	ta					Master
		√ C	USTOMERID	NUMI	BER *	38	<b>‡</b> Ran	ndom(1000	0000, 99999999)				
		N	AME	VARC	HAR2	255	<b>‡</b> Cou	untry					
		C	ONTACTNUMBER	VARC	HAR2	20 3	<b>1</b> 0+5	5+Random	(10000000, 99999999	)			
		EI	MAIL	VARC			<b>‡</b> Ema			•			
		A	DDRESS	VARC			♣ Add					***	
		IN	NDUSTRYTYPE	_					'ministry of defence', '	shabak' , 'idf' , 'refael')	)	•••	
			CCOUNTMANAGERII	_								ACCOUNT_MANAGER ORDER BY DI ***	
					_				-				
	CUSTOMERID	NAME			EMAIL				ADDRESS	INDUSTRYTYPE		ACCOUNTMANAGERID	
1	2807249		36638783		aliceh@ubp.c				56 Eindhoven	··· refael	•••	91289020	
2	60553929	Germa	nny *** 26101331	•••	tal.todd@fmt	.de		••	958 Obfelden Ave	*** shabak	•••	85884778	
3	16892383	France	··· 69230616	***	juan.jovovich(	@gateway.f	fr	***	81 Hex Blvd	··· refael	•••	56955700	
4	16566665	Brazil	··· 37869446	•••	bruce.b@niss	anmotor.br	r	••	92 Brosnan Road	··· mossad	•••	34566721	
5	48041620	USA	··· 30783862	•••	holland.carrer	e@electrica	alsoluti	ions.com "	25 Cocker Street	" ministry of defence	•••	44543774	
6	51506073	Germa	ny *** 65076691	•••	brendan@chh	nc.de		••	30 Daejeon Drive	*** shabak	•••	85884778	
7	76036750	Finland	d ··· 19576869	•••	chubbyw@us	ainstrumen	nts.fi	•••	50 Täby Road	··· refael	•••	95173305	
8	32664711	Brazil	··· 36595125	•••	fional@unicru	ı.br		•••	783 Natasha Street	··· shabak	•••	68110990	
9	69299771	Japan	··· 37527250	•••	s.mcnarland@	kingston.jp	р	•••	91st Street	··· mossad	•••	95173305	
10	85515191	USA	··· 66474320	•••	tamala.sarsga	ard@divers	sitech.	com	96 Lisbon Road	··· refael	•••	73986708	
11	18786419	Germa	any 39769227		rachael.ramis(				55 Utsunomiya Road	··· idf	•••	56955700	
12	72529613	USA	··· 93460187		thomasd@ne				90 Van Helden Road	" ministry of defence	•••	74709883	
13	71192483	USA	··· 91537404	***	debra.heslov@	@spd.com		•••	20 Nashua Drive	··· idf	•••	85884778	
					,					***			



# DATA GENERATOR: SUPPORT TICKET



	<	Owner		Table						N	lumber	of reco	rds						_
	>	SYS	~	SUPPO	ORT_TICK	ET				v 1	1020								
		Name	Тур	е		Size	9	Da	ta										Master
		TICKETID	NUN	MBER	•	38		♣   Rai	ndom(1	00000	000, 999	999999)							
		ISSUEDESCRIPTION	VAR	CHAR2	•	400	00	‡ List	t('Reliab	ility o	f detect	ion syst	tems', 'Inte	erception acc	uracy', 'Cor	nmu	nication late	ncy', 'Maintenar '	•
		STATUS	VAR	CHAR2	•	50		List	t('Open',	, 'Pen	ding', 'F	Resolved	d', 'Closed'	', 'Escalated')				•	•
		CREATEDDATE	DAT	E	•			<b>‡</b> Rai	ndom(0	1/01/	2022, 0	1/05/20	023)					•	
	$\checkmark$	RESOLVEDDATE	DAT	E	*			<b>‡</b> Rai	ndom(0	1/05/	2023, 0	1/05/20	024)					•	•
		CUSTOMERID	NUN	<b>MBER</b>	۳	38		<b>\$</b> SQ	L(SELEC	T * FF	ROM (SI	ELECT C	USTOMER	ID FROM CU	ISTOMER C	RDE	R BY DBMS_	RANDOM.VALL"	•
		ACCOUNTMANAGERID	NUN	MBER	•	38		<b>\$</b> SQ	L(SELEC	T * FF	ROM (SI	ELECT A	CCOUNTN	MANAGERID	FROM ACC	OUN	NT_MANAGE	R ORDER BY DI	
CKETID	ISS	SUEDESCRIPTION			STATUS		CRFA	TEDDA	TE RE	SOLV	EDDATE	CUST	OMERID	ACCOUNTMA	ANAGERID	RO	WID		
		Inerability to cyber attacks		•••	Open			5/2022		7/01/2			60553929				AS+8AABAAA	p	
73856054	Vul	Inerability to cyber attacks			Pending		15/03	3/2023	··· 10	)/07/2	023	•••	32664711		44543774	4 AA	AS+8AABAAA	p	
		vironmental adaptability		•••	Escalated		16/11	/2022	··· 10	)/07/2	023	•••	16566665	5	69348183	3 AA	AS+8AABAAA	p	
5953341	Fal	se positives and negatives		•••	* Escalated		10/05	/2022	30	)/07/2	023	•••	18786419	)	95173305	5 AA	AS+8AABAAA	р	
32493367	Ma	intenance and operational c	osts	•••	Open .	•••	28/06	/2022	··· 22	2/09/2	023	•••	71192483	3	95173305	5 AA	AS+8AABAAA	р	
3815990	Inte	egration with existing defens	se sy	stems "	* Escalated		31/03	3/2022	··· 18	3/05/2	023	•••	48041620	)	44543774	4 AA	AS+8AABAAA	р	
36360579	Su	pply chain security		•••	* Escalated		24/04	1/2022	<b></b> 13	3/01/2	024	•••	60553929	)	91289020	) AA	AS+8AABAAA	р	
54745964	Inte	erception accuracy		•••	Open -	•••	22/09	9/2022	06	5/08/2	023	•••	72529613	3	74709883	3 AA	AS+8AABAAA	р	
		mmunication latency			Pending			)/2022		1/07/2	023	•••	32664711		95173305	5 AA	AS+8AABAAA	р	
12928372	Rel	liability of detection systems	5	•••	* Resolved		11/03	3/2023	··· 23	3/11/2	023	•••	69299771		44543774	4 AA	AS+8AABAAA	р	
37656129	Vul	Inerability to cyber attacks		•••	· Closed	•••	19/08	3/2022	··· 24	1/08/2	023	•••	16566665	5	56955700	) AA	AS+8AABAAA	р	
37268516	Rel	liability of detection systems	5	•••	Open -	•••	06/03	3/2022	··· 12	2/07/2	023	•••	76036750	)	74709883	3 AA	AS+8AABAAA	р	



# DATA GENERATOR: ORDER



	4	< Ov	vner		Table				N	umber of	records			
	>	31	S	~	ORDER_				× 1	020				
		 Name	<b>1</b>	Тур	ne		Size	Data	1					Master
		ORDE			MBER	*			dom(100000	nn 9999	9999)			v v
		_	RDATE	DA		•			dom(01/01/2					•
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	_	'ERYDATE	DA		•			dom(01/05/2	•				•
		STATI		_		•						'Dolivoro	ed', 'Completed')	▼
		_	LAMOUNT		MBER	_							RODUCT ORDER BY DBMS_RANDOM.VALUE) WHER ***	•
			OMERID	_	MBER								ROM CUSTOMER ORDER BY DBMS_RANDOM.VALI ***	•
		COSIN	OWIENID	INO	IVIDEIX	•	J0 _	JQL	(SELECT FIX	OW (SELI	C1 C03101	VIERID FI	NOW COSTOMER ORDER BY DBINS_RANDOM.VAL	v
	ORDER	RID	ORDERDATE	DE	LIVERYDATE		STATUS		TOTALAMO	DUNT	CUSTOME	RID 🔲	F	
1	222	96433	02/05/2022	··· 31,	/08/2023	•••	Complete	d	728	2919.00	280	72493	A	
2	7818	83091	03/03/2022	··· 31,	/07/2023		Delivered	•••		3167.00	760	36750	A	
3	676	54902	01/02/2023	26	/10/2023	•••	Pending	•••	962	7408.00	692	99771	A	
4	267	31761	05/05/2022	09	/09/2023		Pending	•••	46	3760.00	515	06073	A	
5	408	22735	18/11/2022	··· 16	/02/2024	•••	Pending	***	648	0109.00	711	92483	A	
6	975	33574	26/04/2023	··· 05	/08/2023		Complete	d ""	627	8646.00	760	36750	A	
7	480	06428	03/04/2022	29	/11/2023	•••	Pending	***	627	8646.00	760	36750	A	
8	650	67065	30/09/2022	··· 15,	/05/2023	•••	Processed	•••	781	9704.00	480	41620	A	
9	8069	98835	25/02/2022	··· 16	/10/2023	•••	Processed	•••	56	3167.00	855	15191	A	
10	648	86924	23/09/2022	<b></b> 31,	/12/2023	•••	Complete	d "	56	3167.00	692	99771	A	
11	938	21676	01/03/2022	28	/11/2023		Delivered	•••	728	2919.00	725	29613	A	
12	841	42157	13/05/2022	05	/09/2023	•••	Pending	•••	962	7408.00	165	66665	A	
13	361	76836	08/01/2022	09	/12/2023	•••	Pending	•••	627	8080.00	187	86419	A	



# DATA GENERATOR: PRODUCT



		< Owner	Table			1	Num	nber of record	ds		
		> SYS	∨ PRODUCT				102	20			
		Name	Туре	Size	D	ata				I	Master
		PRODUCTID		₹ 38		andom(10000	000	, 99999999)		•••	
	_	/ NAME	VARCHAR2	* 255					AAD (Terminal High Altitude Area Defense)', 'SM-6 (Standard M	is ···	
		CATEGORY	VARCHAR2	₹ 255	<b>‡</b> Lis	st('Surface-to-	Air	Missiles', 'Ant	ti-Tank Missiles', 'Defense Systems')	•••	
		PRICE	NUMBER	* 10,2	<b>‡</b> Ra	andom(10000	0.00	), 9999999.00	0)	•••	
		DESCRIPTION	VARCHAR2	<b>4</b> 000	) 🖨 Lis	st('High-precis	sion	targeting for	r aerial threats', 'Armor-penetrating capability for ground target	s', ***	
		INVENTORYCOUNT	NUMBER	<b>*</b> 38	<b>‡</b> Ra	andom(1, 100	000	0)		•••	
65236	5036	Javelin Missile			Δnti-Tan	k Missiles	•••	3404705.00	Armor-penetrating capability for ground targets		
		Harpoon Missile				o-Air Missiles			Armor-penetrating capability for ground targets "		
		Javelin Missile				k Missiles			Armor-penetrating capability for ground targets ***		
		SM-6 (Standard Missile	-6)		Defense				Comprehensive protection and surveillance "		
		THAAD (Terminal High	-			•			High-precision targeting for aerial threats		
		THAAD (Terminal High				o-Air Missiles			Comprehensive protection and surveillance		
		S-400 Missile System			Surface-t	o-Air Missiles	•••		Comprehensive protection and surveillance "		
70482	2225	S-400 Missile System		•••	Anti-Tan	k Missiles	•••	8335935.00	High-precision targeting for aerial threats		
10123	3399	SM-6 (Standard Missile	-6)	•••	Surface-t	o-Air Missiles	•••	563167.00	Armor-penetrating capability for ground targets		
35937	7232	S-400 Missile System		***	Anti-Tan	k Missiles	•••	6278080.00	High-precision targeting for aerial threats ""		
20305	5768	THAAD (Terminal High	Altitude Area Defe	nse)	Defense	Systems	•••	7819704.00	Comprehensive protection and surveillance "		
25550	0951	Aegis Combat System		•••	Anti-Tan	k Missiles	•••	3029647.00	Comprehensive protection and surveillance		



# DATA GENERATOR: PAYMENT



<	Owner	Table			Number	of records		
>	SYS	V PAYMENT		~	1020			
ľ	Name	Туре	Size	Data				Master
Г	PAYMENTID	NUMBER	<b>*</b> 38 <b>\$</b>	Random(1000	00000, 99	999999)		••
Г	PAYMENTDATE	DATE		Random(01/0				••
	PAYMENTMETHOD	VARCHAR2	▼ 50 💠	List('credit car	d', 'trade',	'stocks' , 'ca	ısh')	••
Г	AMOUNT	NUMBER					FROM PRODUCT ORDER BY DBMS_RANDOM.VALUE) WHER "	
	TRANSACTIONID			Random(10, 9	999)			••
/	ORDERID					DBMS RAND	OOM.VALUE) WHERE ROWNUM = 1)	••
×			▼ ▲	_				
AYN	MENTID PAYMENTDAT	TE PAYMENTMETH	OD AMOUN	T TRANSACT	IONID 🔲	ORDERID		
	94922560 10/03/2022	··· credit card	··· 340470	5.00 25	•••	15902497		
	14808088 16/07/2022	··· cash	··· 781970	4.00 908	•••	78183091		
	12774548 19/03/2023	··· cash	··· 598129	2.00 989	•••	84142157		
	18236276 19/03/2022	··· credit card	··· 626931	0.00 897	•••	51078240		
	21170887 11/03/2023	··· credit card	··· 728291	9.00 720	***	64886924		
	78593540 08/04/2023	··· cash	··· 797983	7.00 899	•••	15902497		
	83640801 25/02/2022	··· stocks	··· 46376	0.00 89		97533574		
	50484583 29/10/2022	··· stocks	18001	3.00 390		26731761		
	53044913 13/08/2022	··· cash	··· 728291	9.00 845		66718476		
	57970283 14/01/2023	··· credit card	··· 627808	0.00 15		48006428		
	94854319 08/01/2022	··· credit card	253618			85393338		
	59157539 07/11/2022	*** trade	··· 598129			36698048		



# DATA GENERATOR: ORDER & PRODUCT M:N RELATION



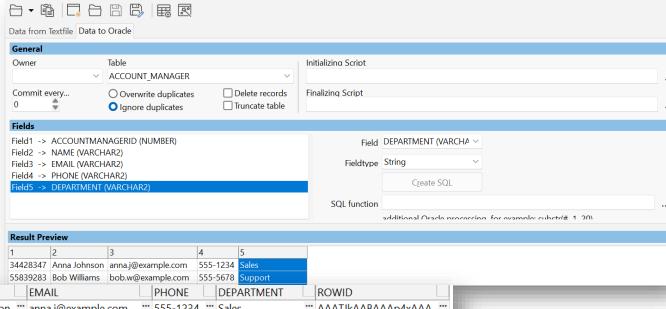
	<	Owne	r		Table					Number of records		
	>	SYS		~	PART_OF				~	1020		
		Name		Туре	)		Size	Data			Master	
	(	ORDERIE	)	NUN	IBER *	7	38 💠	SQL(S	ELECT *	FROM (SELECT ORDERID FROM ORDER_ ORDER BY DBMS_RANDOM.VALUE) WHE	•	
	<b>✓</b>	PRODUC	TID	NUN	1BER *	7	38 💠	PROI	DUCT O	RDER BY DBMS_RANDOM.VALUE) WHERE ROWNUM = 1)	•	
О	* RDEI	RID 🗀	PRODUCTION	) [	ROWID		•				•	
6	7654	902 *	13189	105	AAAS++A	Α	BAAAp6l	nAAA	•••			
6	4886	924 *	98404	995	AAAS++A	Α	BAAAp6l	nAAB	•••			
3	6176	836 *	65236	036	AAAS++A	Α	BAAAp6ł	nAAC	•••			
6	6718	8476 *	25214	584	AAAS++A	Α	BAAAp6ł	nAAD	•••			
8	0698	8835 *	87161	211	AAAS++A	Α	BAAAp6ł	nAAE	•••			
	9006	5428 <b>*</b>	/0133	207	AAAS++A	۸	RAAAn6k	۸ ۸ E	***			

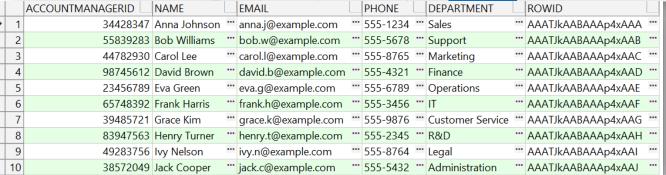


PRECISION PROTECTION. GLOBAL SECURITY

#### TEXT IMPORT GENERATOR:

# ACCOUNT MANAGER



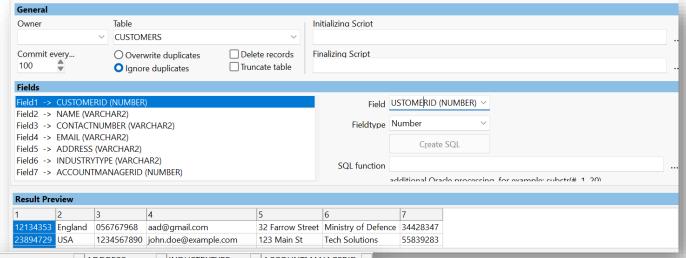


Link for Text file (.txt)



# TEXT IMPORT GENERATOR: CUSTOMERS





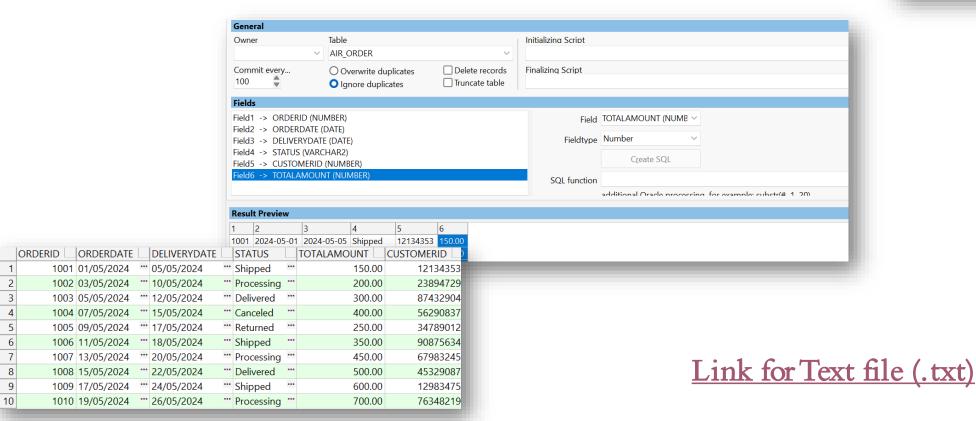
	CUSTOMERID	NAME		CONTACTNUMBER		EMAIL		ADDRESS		INDUSTRYTYPE		ACCOUNTMANAGERID
1	12134353	England	•••	056767968	•••	aad@gmail.com	•••	32 Farrow Street	•••	Ministry of Defence	•••	34428347
2	23894729	USA	•••	1234567890	•••	john.doe@example.com	•••	123 Main St	•••	Tech Solutions	•••	55839283
3	87432904	Canada	•••	0987654321	•••	jane.smith@domain.com	•••	456 Elm St	•••	Health Services	•••	44782930
4	56290837	Australia	•••	1122334455	•••	bruce.wayne@batmail.com	•••	789 Pine St	•••	Finance Corp	•••	98745612
5	34789012	Germany	•••	9988776655	•••	hans.gruber@villains.com	•••	321 Oak St	•••	Industrial Inc	•••	23456789
6	90875634	France	•••	5566778899	•••	michel.dubois@exemple.fr	•••	654 Maple St	•••	Energy Systems	•••	65748392
7	67983245	Japan	•••	4433221100	•••	sakura.tanaka@jpmail.com	•••	987 Cedar St	•••	Automotive	•••	39485721
8	45329087	India	•••	6677889900	•••	rahul.sharma@india.co	•••	159 Spruce St	•••	IT Solutions	•••	83947563
9	12983475	Brazil	•••	7788996655	•••	marcelo.santos@brmail.com	•••	753 Palm St	•••	Telecom Services	•••	49283756
10	76348219	Italy		3344556677		giovanni.rossi@itmail.it	•••	852 Olive St	•••	Construction		38572049

Link for Text file (.txt)



# TEXT IMPORT GENERATOR: ORDER







# TEXT IMPORT GENERATOR: PAYMENT

\*\*\* Bank Transfer

··· Credit Card

Bank Transfer

··· Credit Card

··· Cash

··· PayPal

··· Cash

300.00 4003

400.00 4004

250.00 4005

350.00 4006

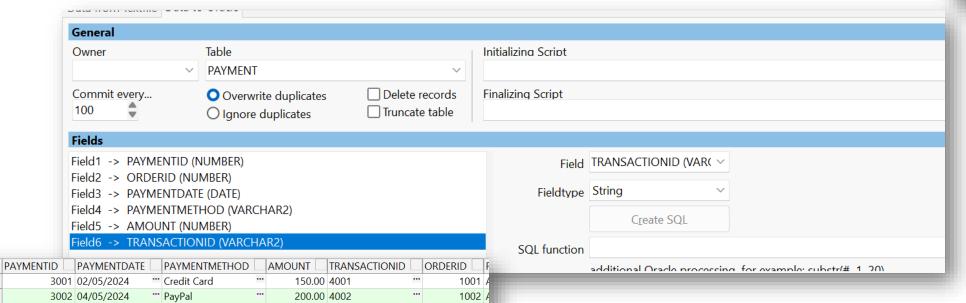
450.00 4007

500.00 4008

600.00 4009

700.00 4040





1003

1004

1005

1006

1007

1008

1009

Link for Text file (.txt)



9

3003 06/05/2024

3004 08/05/2024

3005 10/05/2024

3006 12/05/2024

3007 14/05/2024

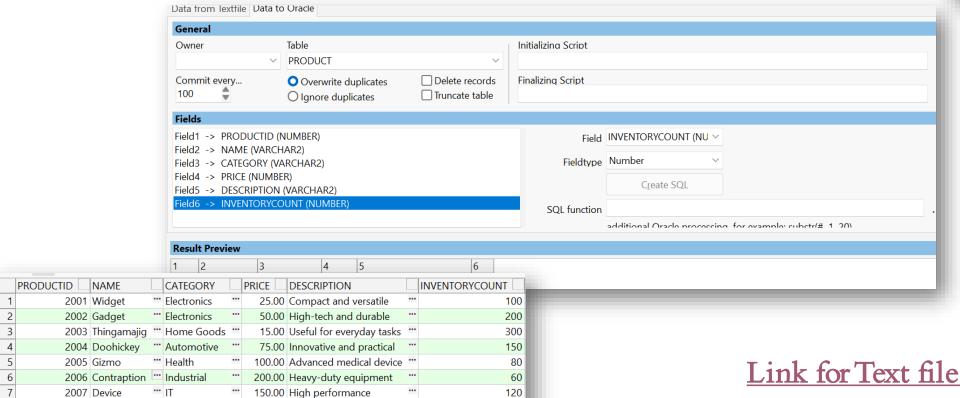
3008 16/05/2024

3009 18/05/2024

2040 20/05/2024

# TEXT IMPORT GENERATOR: PRODUCT







2007 Device

... IT

500.00 Rugged and reliable

300.00 High fidelity

2008 Apparatus " Construction "

2009 Instrument " Music

Link for Text file (.txt)

120

50

70

# TEXT IMPORT GENERATOR: SUPPORT TICKET

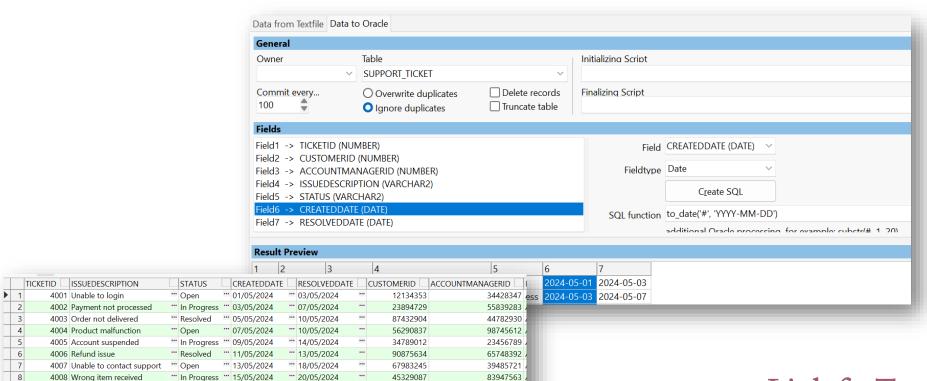
... 17/05/2024

... 19/05/2024

... 19/05/2024

... 22/05/2024





12983475

76348219

Link for Text file (.txt)



4009 Website down

4010 Order canceled but charged " Open

49283756

38572049

#### TEXT IMPORT GENERATOR:

2006 AAATJwAABAAAp6hAAG ...

2007 AAATJWAABAAAp6hAAH \*\*\*

2009 AAATJwAABAAAp6hAAJ \*\*\*

2008 AAATJWAABAAAp6hAAI

1007

1008

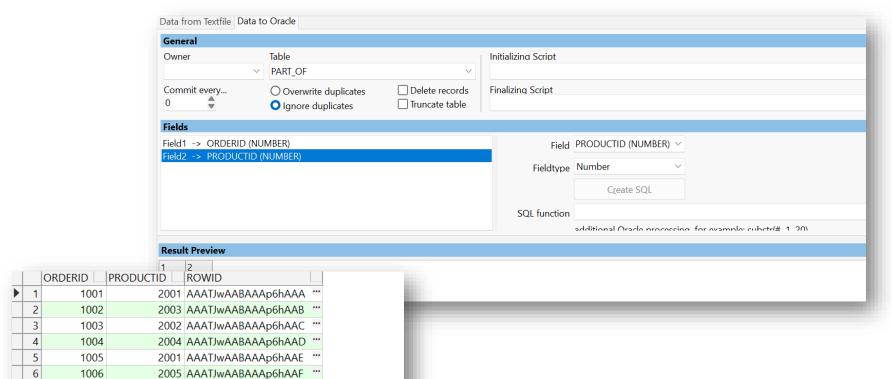
1009

1010

10

#### ORDER & PRODUCT M:N RELATION













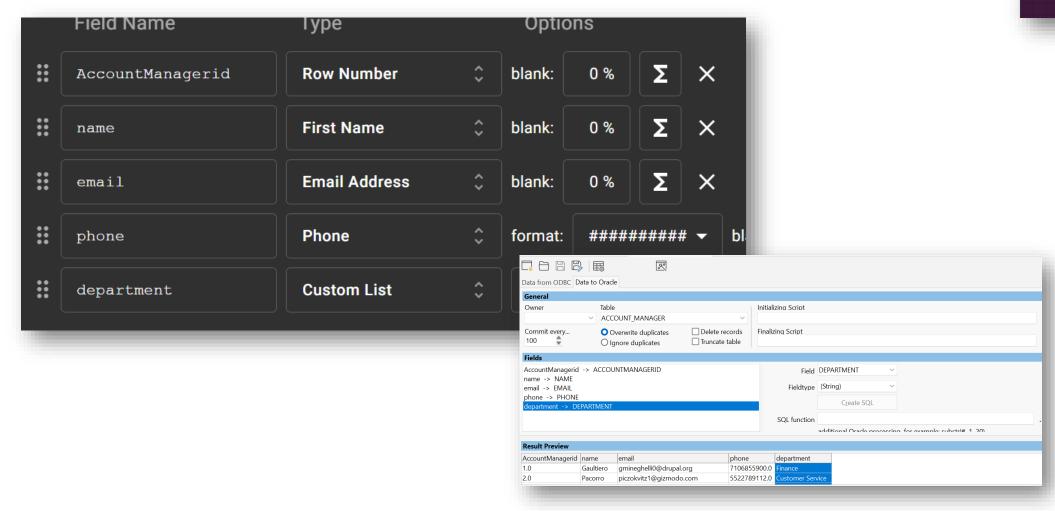
- 1) ACCOUNT MANAGER EXCEL
- 2) CUSTOMER EXCEL
- 3) ORDER EXCEL
- 4) PAYMENT EXCEL
- 5) PRODUCT EXCEL
- 6) SUPPORT TICKET EXCEL
- 7) PART OF (ORDER & PRODUCT M:N RELATION) EXCEL



PRECISION PROTECTION, GLOBAL SECURITY

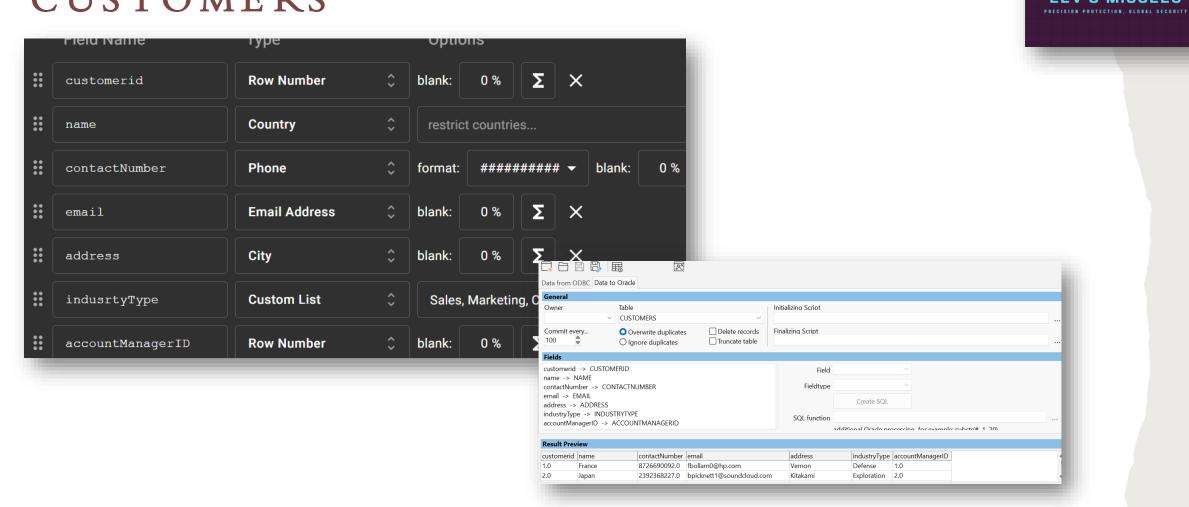
#### EXCEL IMPORT GENERATOR:

#### ACCOUNT MANAGER





## EXCEL IMPORT GENERATOR: CUSTOMERS





## EXCEL IMPORT GENERATOR: ORDER



mat: mm/dd/yyyy ▼ blank: 0 % ∑
mat: mm/dd/yyyy ▼ blank: 0 % ∑ ;
异 random ▼ blank: 0 %
▼ blank: 0 % ∑ ×
ta to Oracle
Table  AIR ORDER  Initializing Script
Overwrite duplicates Delete records Ignore duplicates Truncate table
D Field TOTALAMOUNT V
IVERYDATE Fieldtype (Float)
TALAMOUNT Create SQL
TOMERID SQL function
additional Orado proceeding for example exhetri# 1 201
deliveryDate         status         totalAmount         customerID           08/06/2023         delivered         8408.0         1.0
vo/vo/zvzs uenvereu duto.o 1.0
ta Diff. I



## EXCEL IMPORT GENERATOR: PAYMENT



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#	paymentMethod	Custom List \$\hat{\( \tilde{\chi} \)	credit	card, PayPa	l, Venmo	o, Apple Pay, cas	sh,stocks		舉	random	▼ bla	nk: 0 %						
# (	Amount	Number \$\hfrac{1}{\cdot}\$	min:	1000	max:	10000	decimal	s: 0	blank:	0 %	×							
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#	andanTD	Row Number 🗘	blook	0 %	ΣΧ	. [-]	Data from ODB	C Data to O	racle									
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							Commit every.	(	Overwrite duplicat Ignore duplicates			Finalizing Script						
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							paymentDate paymentMetho					Fieldtype Number ∨						
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							orderID -> OF		HOND			SQL function						
												additional Oracle processing for example: substri# 1 20)						
							Result Preview	v										
									paymentMethod Ar									
							1.0   15/11/2022   credit card   8439.0   1.0   1.0											



## EXCEL IMPORT GENERATOR: PRODUCT

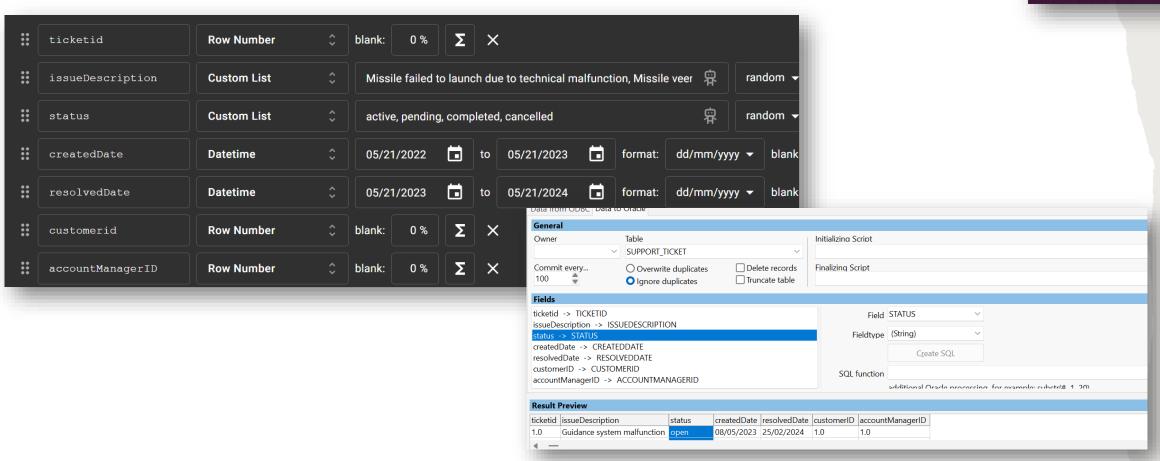


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<b>::</b> (	productid	Row Number 🗘	blank	: 0 %	Σ	: ×													1									
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<b>::</b>	inventoryCount	Number \$	min:		1	max:	10	000	decim	nals:	0 E	olank:	0	) %	Σ	×			ı	L								
					_	Gen	neral																					
						Owi			Ta	ble							Initializi	na Script										
										RODUCT						~												
						Con	nmit every			) Overwri				Dele	to roc	cords	Finalizir	a Script										
						100		•		Ignore		•		☐ Trun			HIGHZII	q Script										
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						Fiel	ds																					
							ductid -> I		JCTID									Fie	eld CA	TEGC	RY		~					
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						Resu	ult Preview																					
						proc	ductid nam				_	payment		-		descriptic							ventory	Count				
						1.0	air d	efense	artiller	y gun	F	Radar De	etect	ion 879	8.0 1	Innovativ	e solutio	for safeg	guardir	ng ag	ainst airb	00 21	8.0					



## EXCEL IMPORT GENERATOR: SUPPORT TICKET



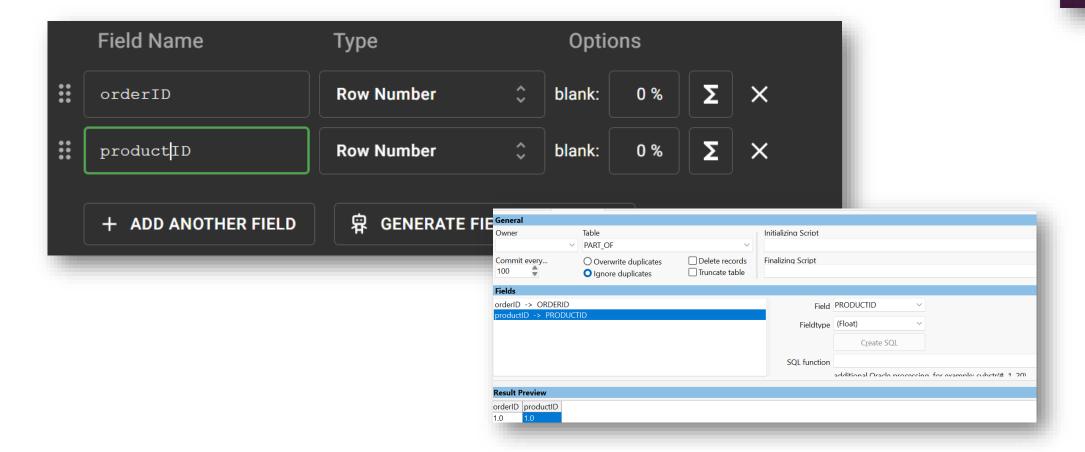




PRECISION PROTECTION, GLOBAL SECURITY

#### EXCEL IMPORT GENERATOR:

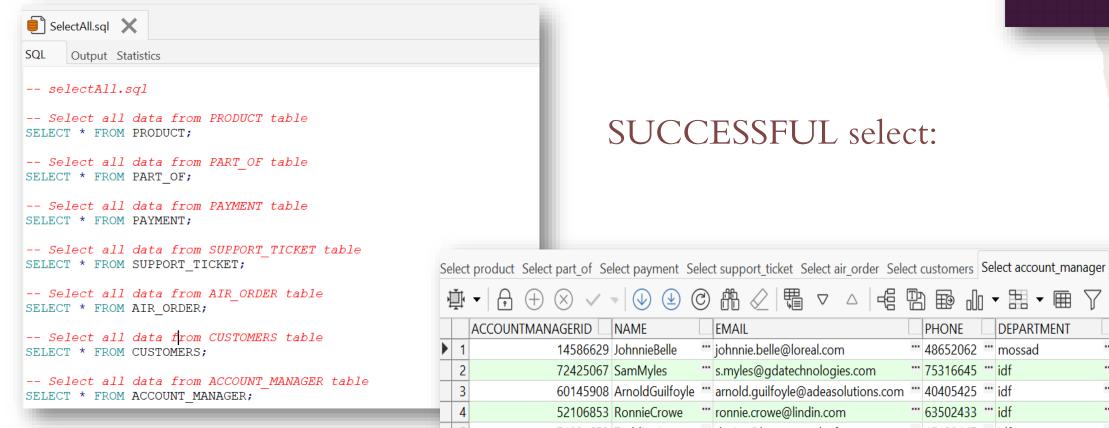
#### ORDER & PRODUCT M:N RELATION



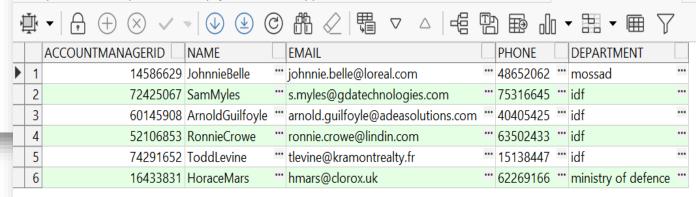


#### SELECT TABLE SQL: SELECT ALL TABLES





#### SUCCESSFUL select:



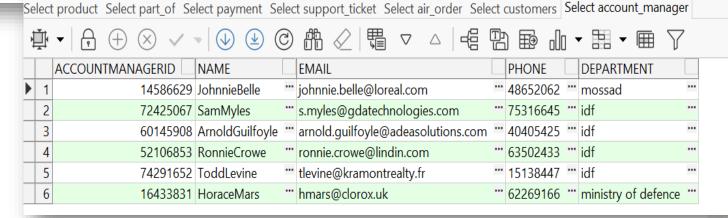


#### INSERT TABLE SQL: INSERT DATA



```
insert into SYS.CUSTOMERS (CUSTOMERID, NAME, CONTACTNUMBER, EMAIL, ADDRESS, INDUSTRYTYPE, ACCOUNTMANAGERID) values (21314323, 'Switzerland', '87440006', 'timothy.palmer@swi.ch', '160 Ivan Street', 'shabak', (SELECT * insert into SYS.CUSTOMERS (CUSTOMERID, NAME, CONTACTNUMBER, EMAIL, ADDRESS, INDUSTRYTYPE, ACCOUNTMANAGERID) values (10937741, 'USA', '96641919', 'maureen.ronstadt@kis.com', '21st Street', 'mossad', (SELECT * FROM (SEI insert into SYS.CUSTOMERS (CUSTOMERID, NAME, CONTACTNUMBER, EMAIL, ADDRESS, INDUSTRYTYPE, ACCOUNTMANAGERID) values (22207567, 'USA', '57044218', 'rawlins.paul@universalsolutions.com', '31st Street', 'mossad', (SELECT insert into SYS.CUSTOMERS (CUSTOMERID, NAME, CONTACTNUMBER, EMAIL, ADDRESS, INDUSTRYTYPE, ACCOUNTMANAGERID) values (46394655, 'USA', '29934876', 'kitty.oszajca@microtek.com', '5 Cathy Road', 'shabak', (SELECT * FROM insert into SYS.CUSTOMERS (CUSTOMERID, NAME, CONTACTNUMBER, EMAIL, ADDRESS, INDUSTRYTYPE, ACCOUNTMANAGERID) values (86988212, 'USA', '61913632', 'kevn.waits@idas.com', '362 Ca
```

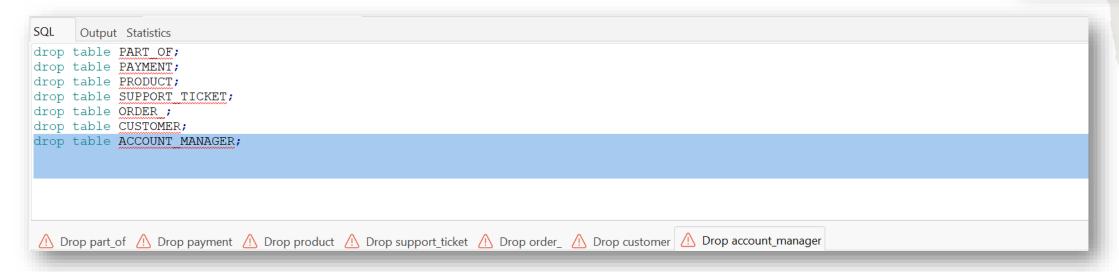
#### SUCCESSFUL insert:





#### DROP TABLE SQL: DELETE TABLES BY ORDER



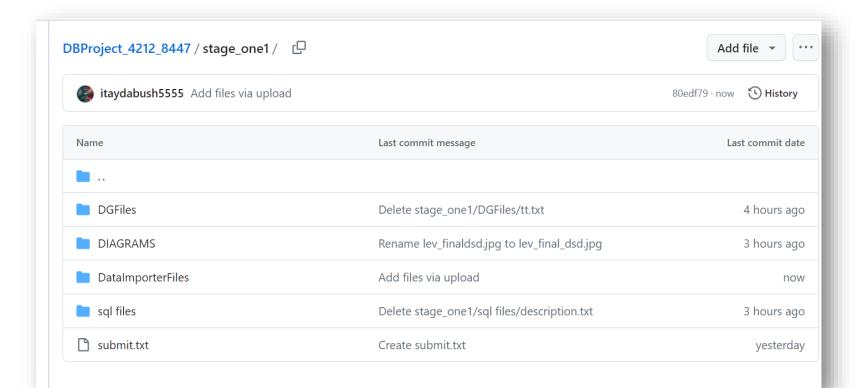


#### SUCCESSFUL DELETE:

First, we need to delete the tables that are not referenced by other tables using their primary key as a foreign key. Then, we need to delete the referenced tables in the correct order, ensuring that we delete the referencing tables before.



#### GIT EXPLANATION:





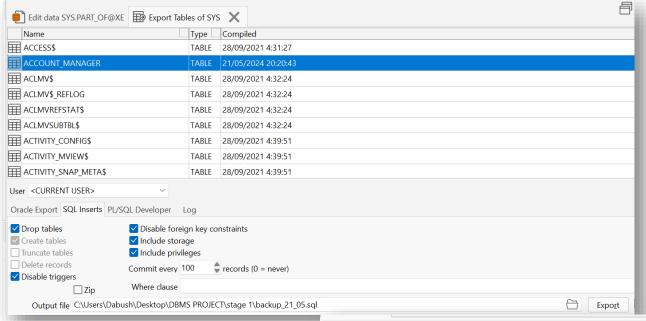
### Repository name DBProject 4212 84/

DBProject\_4212\_8447:

# Directory stage\_one1 contains the first level of the project, organized by 4 sub directoriesdiagrams, SQL files, data import files, data generator files



#### EXPORT BACKUP TABLES:



```
drop table PART_OF;
drop table PAYMENT;
drop table PRODUCT;
drop table SUPPORT_TICKET;
drop table AIR_ORDER;
drop table CUSTOMERS;
drop table ACCOUNT_MANAGER;
```







#### IMPORT BACKUP TABLES:

