

CHEP Pallet Management System

BTech 451 Final Seminar

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CCA Supervisors: **Jet Wu & Darren Ruston**



Company: Coca-Cola Amatil New Zealand

- Licensed bottler of The Coca-Cola Company in New Zealand
- Been in operation since the early 1900s
- 1000 or so people employed by CCA
- 5 production facilities (located in Auckland, Putaruru, Christchurch)



Business Problem: CHEP Pallet Management

- All CHEP Pallet transfers are performed manually
- CCA Staff read data off two screens and type the information into a third system
- Pallet Transfers are not entered into CHEP system
- Potential losses that CCA are liable for
- Losses > \$500,000



CHEP Pallets



- CHEP – Commonwealth Handling Equipment Pool
- Goods sent to Supermarkets within New Zealand on these pallets
- Key Requirement for CCA
- Approximately 40,000 pallets dispatched per month from CCA



Solution

- To create a system to capture and manage pallet movements for CCA Customers and Vendors
- Automation of Shipment information transfer to CHEP
- Automation of Pallet Liability information transfer to CHEP



Related Works



- Not Practical
- Not Cost-effective
- Not Viable for all CCA Customers
- Pallets are prone to damage

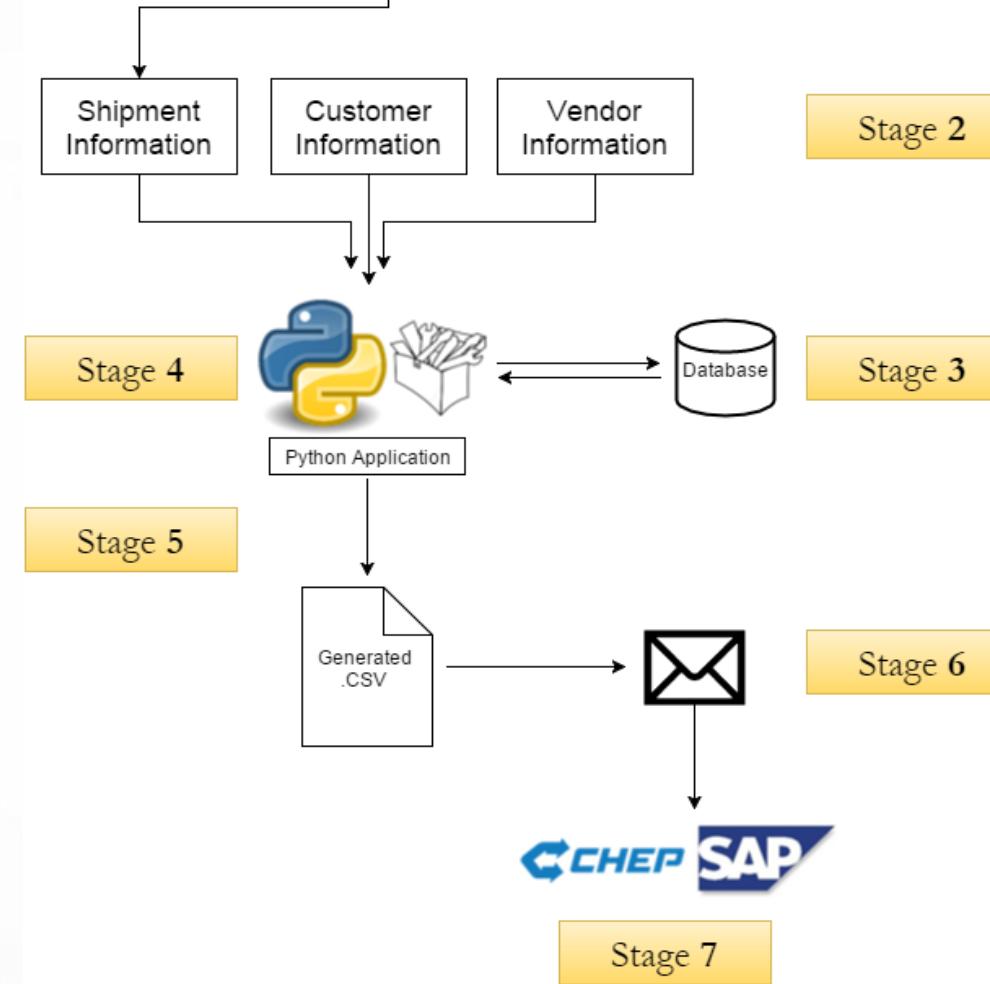


The Project:

- Use of Several Platforms + Technologies to improve business processes
- SAP ABAP, Python3 and SQLite cross-platform library
- Python Application will serve as the intermediary system to automate the transfer of information

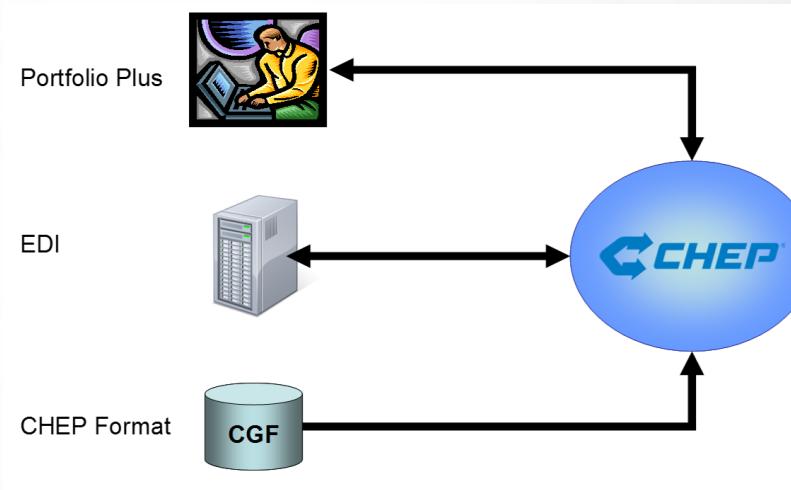


Solution Design:



Solution Design Part 2:

- Referring back to the Stage 6 of my Python Application
- Creation of an EDI (Electronic Data Interchange) File
- Key requirement by CHEP



Solution Benefits:

- Time savings
- Monetary savings
- Staff productivity increased – Less manual work required
- CCA information transferred directly to CHEP systems
- Eliminates several paperwork processes
- Business process streamlining

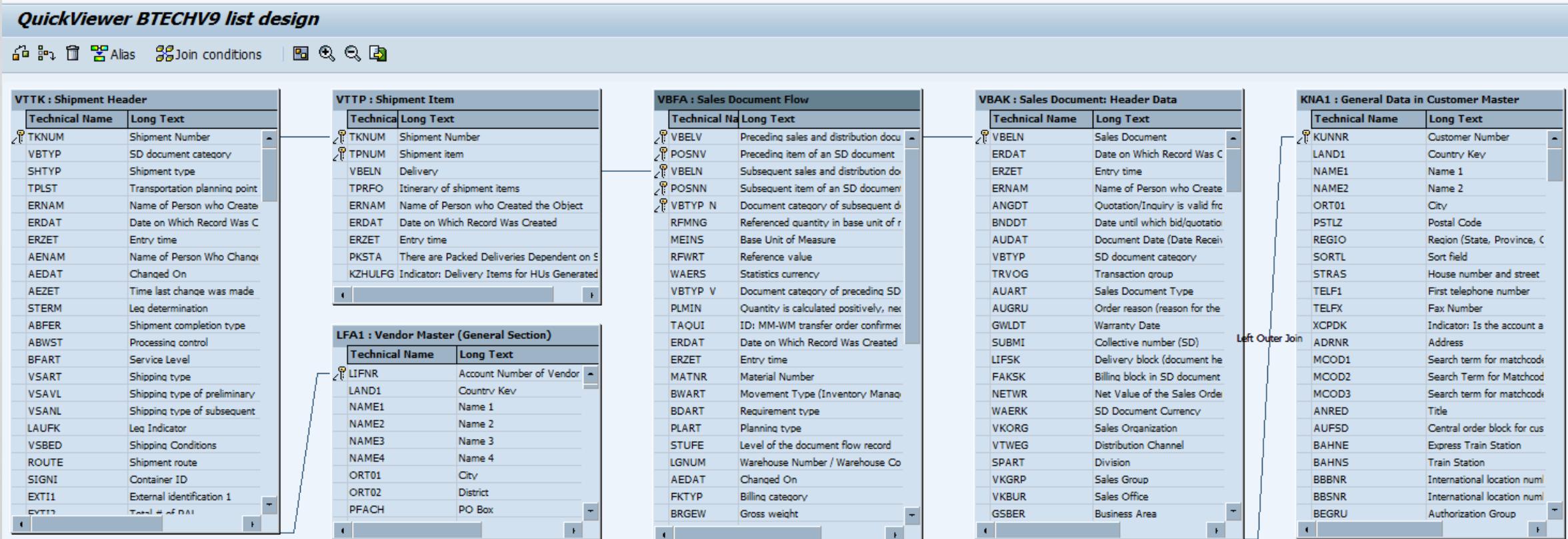


Progress: First-Half

- SAP Table Joins
- Selection process which can allow manual input
- SQVI Extraction Report



SAP Table Joins:



Selection Process:

BTech Extract Version 9



Report-specific selections

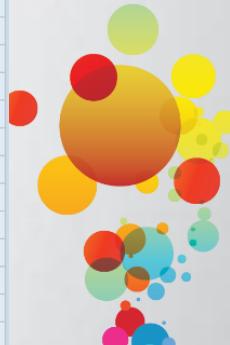
Shipment Number	<input type="text" value="50241399"/>	to	<input type="text" value="50241409"/>	   
Customer purchase order number	<input type="text"/>	to	<input type="text"/>	  
Actual date of check-in	<input type="text"/>	to	<input type="text"/>	 
Shipment type	<input type="text"/>	to	<input type="text"/>	



SQVI Report:

BTech Extract Version 9

Reference	Other Reference	Shipment Date	Pallet Quantity	Purchasing Customer	Purchasing Customer Address	Delivery	Sold-To-PT	TPPT	Forwarding Agent	Proc Time	Ship T.	Shipping Company	SubsIt
50241399	593857991	17.09.2013	24.000	PROGRESSIVE ENTERPRISES #9700	80 FAVONA RD	413168900	8093503	AKAK	295450	15:51:29	Y014	TOLL TRANZLINK NI ERS	000001
50241400	593857964	17.09.2013	23.000	PROGRESSIVE ENTERPRISES #9700	80 FAVONA RD	413168901	8093503	AKAK	295450	15:59:25	Y014	TOLL TRANZLINK NI ERS	000001
50241401	00000154898	17.09.2013	1.000	BP CONNECT BUSH INN	338 RICCARTON RD	413167126	8100840	CHCH	296965	04:21:28	Y014	SCOOBIE CARRIERS PARTNERSHIP	000001
50241401		17.09.2013	1.000	FACC CAFE 92 *5*	92 RUSSLEY RD	413169480	8097952	CHCH	296965	04:21:28	Y014	SCOOBIE CARRIERS PARTNERSHIP	000001
50241402		17.09.2013	1.000	MOUNT ROSKILL LIQUOR CENTRE	1490 DOMINION RD	413168912	8080859	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402	4505564112	17.09.2013	1.000	COCA COLA OCEANIA LTD	19 CARBINE RD	413169719	8020963	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402	30720	17.09.2013	1.000	CCA BRANDS L&P NATL SAMPLG	19 CARBINE RD	413169721	8073496	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402	4505573824	17.09.2013	1.000	COCA COLA OCEANIA LTD	19 CARBINE RD	413169722	8020963	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402		17.09.2013	1.000	OPORTO SYLVIA PARK	286 MT WELLINGTON HWY	413169724	8080304	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402		17.09.2013	1.000	OPORTO SYLVIA PARK	286 MT WELLINGTON HWY	413169724	8080304	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402	30721	17.09.2013	1.000	CCA BRANDS L&P NATL SAMPLG	19 CARBINE RD	413169726	8073496	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241402		17.09.2013	1.000	MASALA MT EDEN	510 MT EDEN RD	413169728	8109821	AKAK	305485	04:42:26	Y014	LOGICAL VENDOR FOR CCA DRIVERS	000001
50241403	417684	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169327	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403		17.09.2013	6.000	FULLERS GROUP LTD	99 QUAY ST	413169370	8035621	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	416951	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169372	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	417146	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169373	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	417352	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169394	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	4981551	17.09.2013	6.000	NEW WORLD METRO QUEEN ST	125 QUEEN ST	413169427	8094104	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	417570	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169442	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	417570	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	413169464	8008147	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	13157	17.09.2013	6.000	CROWNE PLAZA HOTEL	128 ALBERT ST	413169546	8061682	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403		17.09.2013	6.000	FIX QUAY ST 638	137 QUAY ST	413169565	8028906	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	00000152073	17.09.2013	6.000	BP CONNECT FANSHAWE ST	104 FANSHAWE ST	413169568	8034746	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241403	13113	17.09.2013	6.000	CROWNE PLAZA HOTEL	128 ALBERT ST	413169581	8061682	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	SPICE OF INDIA	21 ELLIOTT ST	413168927	8046098	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404	NZ1031	17.09.2013	1.000	MICROSOFT AUCKLAND	22 VIADUCT HARBOUR AVE UNIT 1	413169105	8112256	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	UMIYA	25 ELLIOT ST	413169317	8000779	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	PITA PIT VIADUCT*S*	22 VIADUCT HARBOUR AVE	413169326	8091976	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	VIETNAMESE DELIGHT	21 ATRIUM ON ELLIOT	413169328	8062870	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	HOBSON STREET PHARMACY	136 HOBSON ST	413169331	8092846	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001
50241404		17.09.2013	1.000	NZ CONVENIENCE STORE	130 VINCENT ST	413169332	8007474	AKAK	297242	04:55:25	Y014	PHENESS LIMITED	000001



Progress: Second-Half

- Python Application split into 3 packages-
Main, generateDatabase and exportEmailer
- Developed decision-making logic



Progress: Second-Half Decision-making Logic

- 1) Which shipments are not applicable to CHEP?
- 2) From which shipments must the liability of pallets be transferred directly to the customer?
- 3) From which shipments must the liability of pallets be transferred to the Vendor and not the customer?
- 4) From the above shipments which area were the goods sent to?
- 5) Q3 and Q4 combined, use information to determine the correct Vendor Division



Progress: Second-Half

- Exported information according to CHEP Requirements
- Data Validation of my Export data and CCA SAP Data
- Data Emailed to CHEP and verified
- Completed development of the Python Application



Live Demo



What I have gained:

- Project Management skills
- Time Management skills
- CCA Corporate Business experience
- Python language knowledge
- SAP ABAP language knowledge
- SQLite Cross-platform library knowledge



Questions



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