

CHEP Pallet Management System

BTech 451 Mid-Year Seminar

Project Undertaken By: **Avish Kapadia**

Academic Supervisor: **Dr. Giovanni Russello**

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)



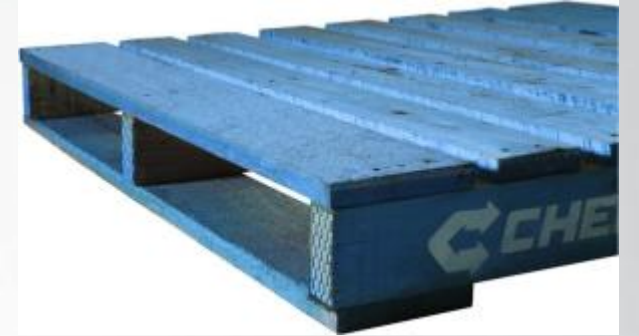
Current CHEP Pallet Management:

- Too Complex
- Manual Process
- Potential Losses
- Losses > \$500,000



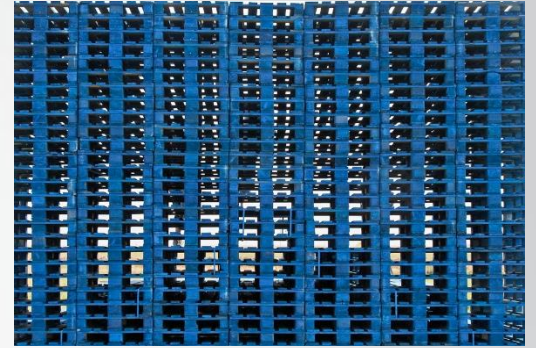
Aim of Project:

To create a more efficient system to manage the incoming and outgoing CHEP pallets for Coca-Cola Amatil NZ.



Solution:

- To create a system to capture and manage pallet movements at a customer level
- Automation of data transfer between CCA and CHEP



Related Works:



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

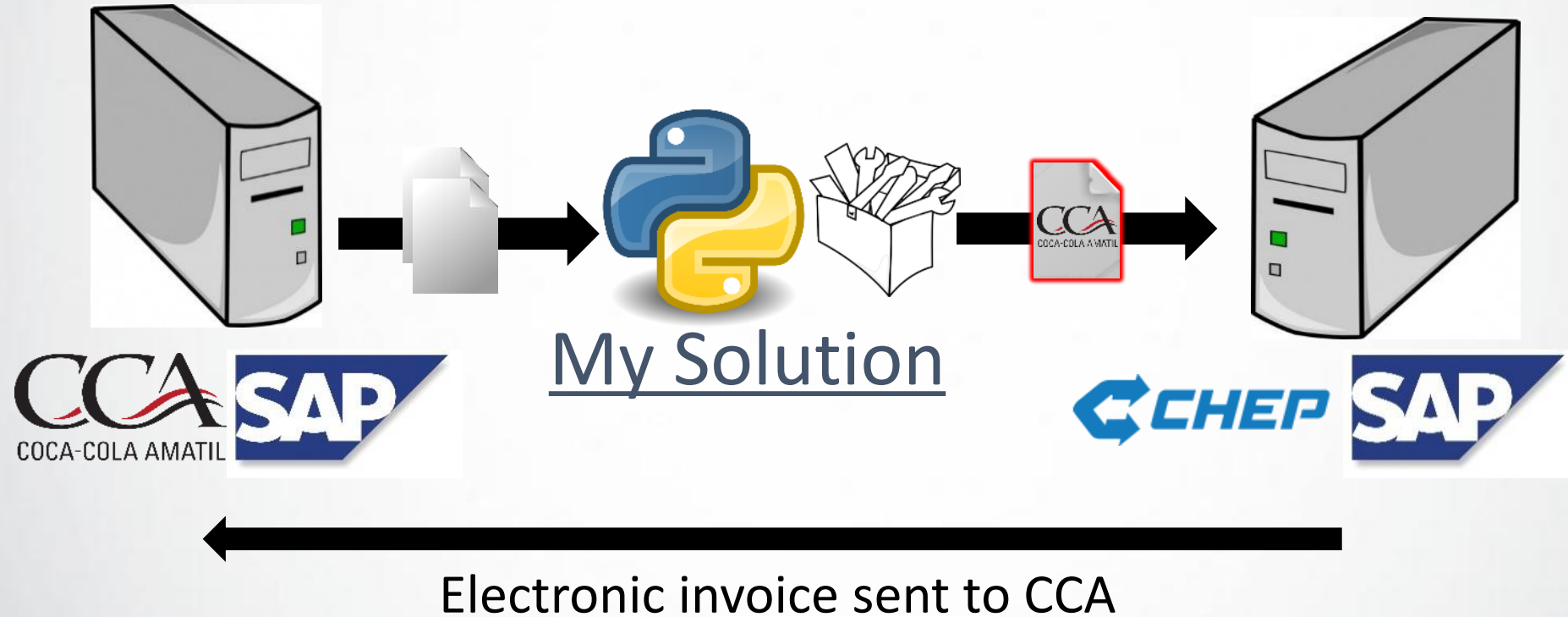


The Project:

- Use of Several Platforms + Technologies to improve business processes
- SAP ABAP, Python3, SQLite Languages
- Python Application will serve as the intermediary system



Solution Design: Python Application



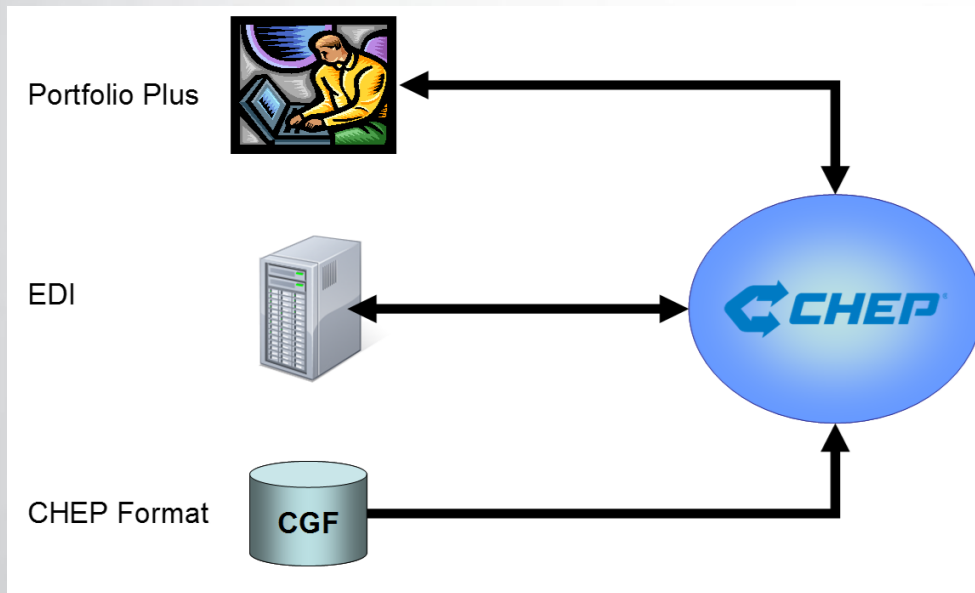
Solution Design: Python Application - Benefits

- Time savings
- Monetary savings
- Increased staff productivity
- Enables CCA information transfer directly to CHEP systems
- Eliminates several paperwork processes
- Business streamlining



Solution Design Part 2:

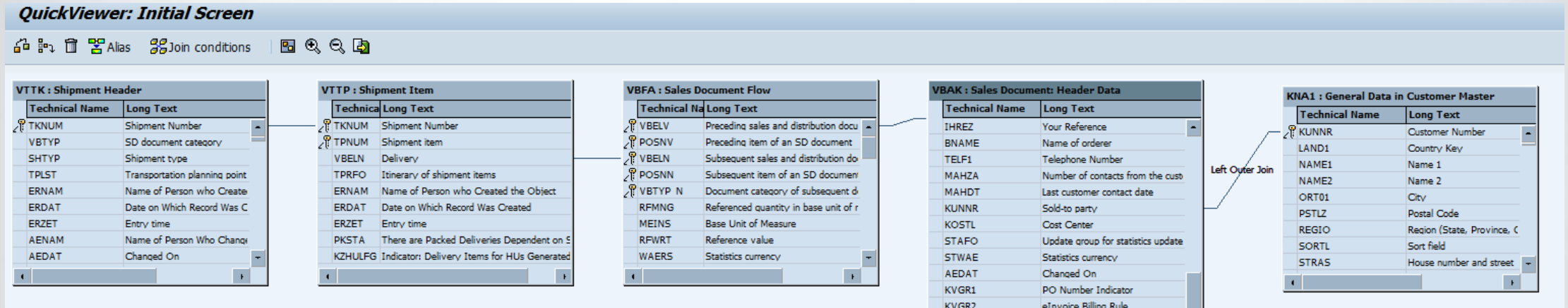
- Create an EDI (Electronic Data Interchange) File



H	1	7	14102008	CDKTF	1.1	6400123456	64	AAZZ0000001			
F	2	DOCKETNUMBER	SENDER	RECEIVER	DOD	DOR	EFD	REF1	REF2	MATERIAL	QUANTITY
D	3	AAZZ000000001A	6400123456	6400987654	11102008	11102008	11102008	"Andrew Howard"	"XYN123345123XCU1"	16001	10
D	4	AAZZ000000002A	6400123456	6400987654	12102008	12102008	12102008	"SH/N 1234"	"DEL456"	16001	14
C	5	AAZZ000000002A	6400123456	6400987654	12102008	12102008	12102008	"SH/N 1234"	"DEL456"	16002	20
D	6	AAZZ000000003A	6400123456	6400987654	12102008	12102008	12102008	"SH/N 1234"	"DEL457"	16001	96
D	7	AAZZ000000004A	6400123456	6400987654	14102008	14102008	14102008	"MI6"	"XYN123345123X007"	16001	78



Current Progress:




Current Progress:

Query EXTRACTV4: List Layout									
BTech 451 Information Export									
Reference	Other Reference	Shipment Date	Pallet Quantity	Customer	Customer Address	Driver 1	Vehicle	SubsIt	
Shipment_N	Customer_purchase_or	Actual_date_of	Total_#_of_PAL	Name_1	House_number_and_street	Driver_1	Vehicle	Subseq	






Current Progress:

Info Extract V1



Report-specific selections

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

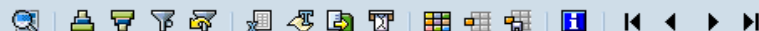
Output specification

Layout	<input type="text"/>
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Shipment Numbers 50241399 – 50241409 selected



Info Extract V1



03.06.2015

Info Extract V1

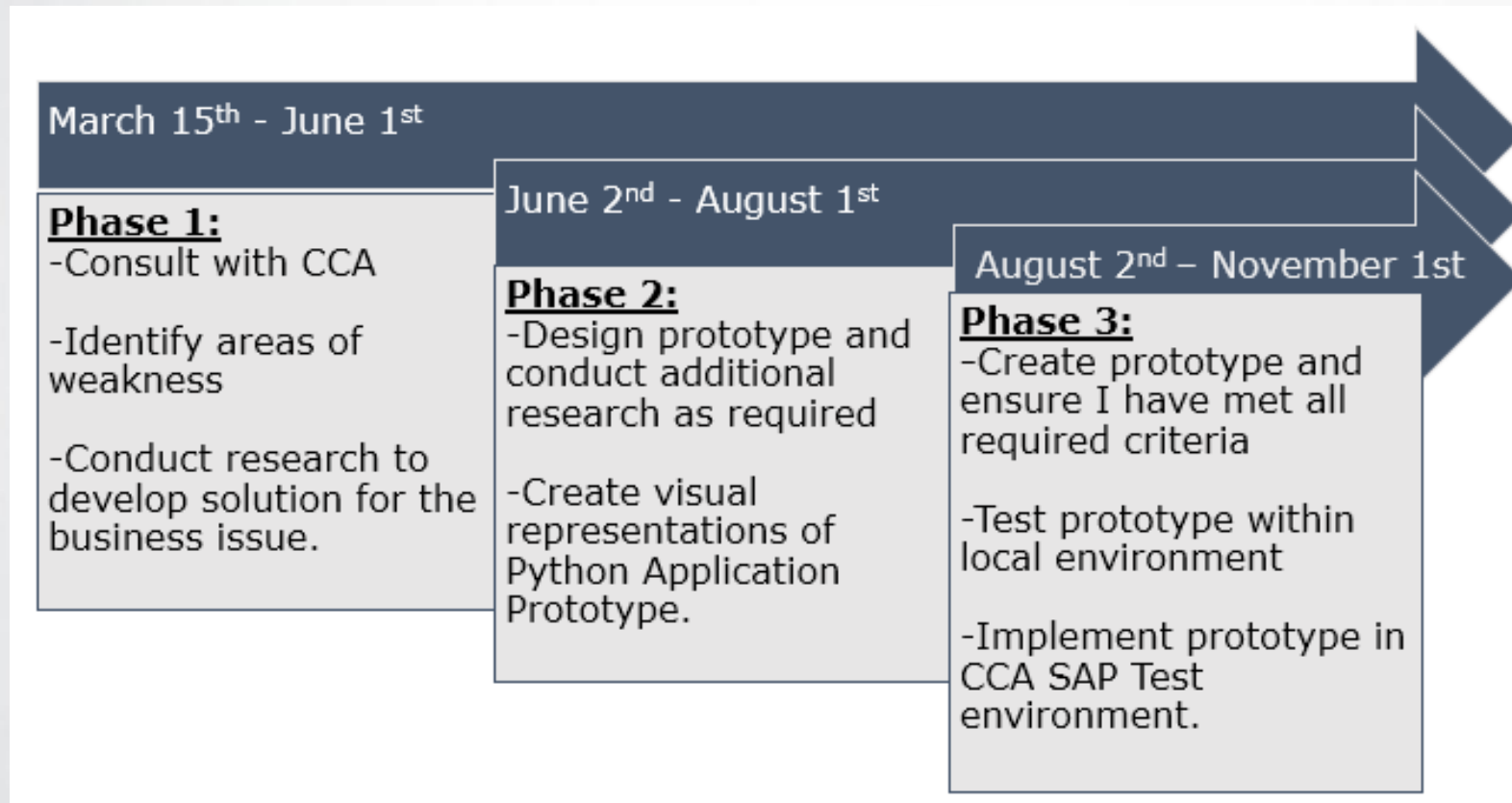
1

Info Extract V1

Reference	Other Reference	Shipment Date	Pallet Quantity	Customer	Customer Address	Driver 1	Vehicle	SubsIt
50241399	S93857991	17.09.2013	24.000	PROGRESSIVE ENTERPRISES #9700	80 FAVONA RD	8089122	2227812	000001
50241400	S93857964	17.09.2013	23.000	PROGRESSIVE ENTERPRISES #9700	80 FAVONA RD	8089122	2227812	000001
50241401	00000154898	17.09.2013	1.000	BP CONNECT BUSH INN	338 RICCARTON RD	8217608	2227906	000001
50241401		17.09.2013	1.000	CAFE 92	92 RUSSLEY RD	8217608	2227906	000001
50241402		17.09.2013	1.000	MOUNT ROSKILL LIQUOR CENTRE	1490 DOMINION RD	8005833	2227811	000001
50241402	4505564112	17.09.2013	1.000	COCA COLA OCEANIA LTD	19 CARBINE RD	8005833	2227811	000001
50241402	30720	17.09.2013	1.000	CCA BRANDS L&P NATL SAMPLG	19 CARBINE RD	8005833	2227811	000001
50241402	4505573824	17.09.2013	1.000	COCA COLA OCEANIA LTD	19 CARBINE RD	8005833	2227811	000001
50241402		17.09.2013	1.000	OPORTO SYLVIA PARK	286 MT WELLINGTON HWY	8005833	2227811	000001
50241402		17.09.2013	1.000	OPORTO SYLVIA PARK	286 MT WELLINGTON HWY	8005833	2227811	000001
50241402	30721	17.09.2013	1.000	CCA BRANDS L&P NATL SAMPLG	19 CARBINE RD	8005833	2227811	000001
50241402		17.09.2013	1.000	MASALA MT EDEN	510 MT EDEN RD	8005833	2227811	000001
50241403	417684	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403		17.09.2013	6.000	FULLERS GROUP LTD	99 QUAY ST	8075887	2227811	000001
50241403	416951	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403	417146	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403	417352	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403	4981551	17.09.2013	6.000	NEW WORLD METRO QUEEN ST	125 QUEEN ST	8075887	2227811	000001
50241403	417570	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403	417570	17.09.2013	6.000	SKYCITY RESTAURANT & BAR	53 WELLESLEY ST	8075887	2227811	000001
50241403	13157	17.09.2013	6.000	CROWNE PLAZA HOTEL	128 ALBERT ST	8075887	2227811	000001
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50241403	00000152073	17.09.2013	6.000	BP CONNECT FANSHAW ST	104 FANSHAW ST	8075887	2227811	000001
50241403	13113	17.09.2013	6.000	CROWNE PLAZA HOTEL	128 ALBERT ST	8075887	2227811	000001
50241404		17.09.2013	1.000	SPICE OF INDIA	21 ELLIOTT ST	8075887	2227811	000001
50241404	NZ1031	17.09.2013	1.000	MICROSOFT AUCKLAND	22 VIADUCT HARBOUR AVE UNIT 1	8075887	2227811	000001
50241404		17.09.2013	1.000	UMIYA	25 ELLIOT ST	8075887	2227811	000001
50241404		17.09.2013	1.000	PITA PIT VIADUCT	22 VIADUCT HARBOUR AVE	8075887	2227811	000001
50241404		17.09.2013	1.000	VIETNAMESE DELIGHT	21 ATRIUM ON ELLIOT	8075887	2227811	000001
50241404		17.09.2013	1.000	HOBSON STREET PHARMACY	136 HOBSON ST	8075887	2227811	000001
50241404		17.09.2013	1.000	NZ CONVENIENCE STORE	139 VINCENT ST	8075887	2227811	000001
50241404		17.09.2013	1.000	SMILE SUPERMARKET	22 VIADUCT HARBOUR AVE UNIT 1	8075887	2227811	000001
50241404		17.09.2013	1.000	OCEANZ SEAFOOD	22A JELLCOE ST	8075887	2227811	000001
50241404		17.09.2013	1.000	TUCK INN LUNCH BAR COFFEE SHOP	125 BEAUMONT ST	8075887	2227811	000001
50241404		17.09.2013	1.000	HOLLYWOOD BAKERY BEAUMONT ST	100 BEAUMONT ST	8075887	2227811	000001



Project Timeline:



Questions



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