

## **Data Dictionary**

Database Name: quinnincDB

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### 1) SystemAdministrator Table:

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
SARecordID	int	-	-	Yes- 1	5
AdminID	char(8)	8 characters	Primary Key	Yes – SA000001	SA000005
Branch	varchar(30)	30 characters	Not Null	-	Liverpool
FirstName	varchar(20)	20 characters	Not Null	-	George
MiddleName	varchar(25)	25 characters	-	-	Noah
LastName	varchar(30)	30 characters	Not Null	-	Adam
LaneAddress	varchar(40)	40 characters	Not Null	-	Beach Lane
City	varchar(20)	20 characters	Not Null	-	Liverpool
EmailAddress	varchar(50)	50 characters	Check	-	sample@sam ple.com
slSystemLoginID	char(8)	8 characters	Foreign Key, Not Null, Check	-	SL000005
saAdminID_RegisteredBy	char(8)	8 characters	Foreign Key, Not Null, Check	-	SA000008
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

### Foreign Key Constraint Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SA_AdminID	SystemAdministrator	saAdminID_RegisteredBy	SystemAdminist rator	AdminID
FK_SL_SystemLoginID	SystemAdministrator	slSystemLoginID	SystemLogin	SystemLoginID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_SA_RegistrationDateTime	SystemAdministrator	RegistrationDateTime	Current date and time

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SA_EmailAddress_@	SystemAdministrator	EmailAddress	(EmailAddress LIKE '%@%')
CHK_SA_AdminIDRegistered By_Length	SystemAdministrator	saAdminID_Regist eredBy	(LEN(saAdminID_RegisteredB y) = 8)
CHK_SL_SystemLoginID_Len gth	SystemAdministrator	salSystemLoginID	(LEN(slSystemLoginID) = 8)

## 2) SystemAdministratorPhoneNumber Table:

Column Name	Data Type	Length	Constraints	Value (Example)
saAdminID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	SA000002
PhoneNumber	char(10)	10 characters	Composite Key, Not Null, Check	7215587145

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SA_AdminID	SystemAdministratorPhoneNumber	saAdminID	SystemAdministrator	AdminID

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SAPN_AdminID_Length	SystemAdministratorPhoneNumber	saAdminID	(LEN(saAdminID) = 8)
CHK_SAPN_PhoneNumber_Length	SystemAdministratorPhoneNumber	PhoneNumber	(LEN(PhoneNumber) = 10)

### 3) SystemLoginPosition Table:

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
SLPRecordID	int	-	-	Yes - 1	5
PositionID	char(8)	8 characters	Primary Key	Yes – PT000001	PT000005
Position	varchar(30)	30 characters	Not Null	-	Bank Teller

#### 4) SystemLogin Table:

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
SLRecordID	int	-	-	Yes- 1	5
SystemLoginID	char(8)	8 characters	Primary Key, Not Null	Yes – SL000001	SL000002
Username	varchar(30)	30 characters	UNIQUE, Not Null	-	-
Password	varchar(50)	50 characters	UNIQUE, Not Null	-	-
slpPositionID	char(8)	8 characters	Foreign Key, Not Null. Check	-	SLP00005
saAdminID_CreatedBy	char(8)	8 characters	Foreign Key. Not Null, Check	-	SD000007
CreationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SL_PositionID	SystemLogin	slpPositionID	SystemLoginPosition	PositionID
FK_SL_AdminID	SystemLogin	saAdminID	SystemAdministrator	AdminID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_SL_CreationDateTime	SystemLogin	CreationDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SL_PositionID_Length	SystemLogin	slpPositionID	(LEN(slpPositionID) = 8)
CHK_SL_AdminID_Length	SystemLogin	saAdminID	(LEN(saAdminID) = 8)



### 5) SystemLoginLoginDateTime Table:

Column Name	Data Type	Length	Constraints	Value (Example)
slSystemLoginID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	SL000004
LoginDateTime	datetime	-	Composite Key, Not Null, Default	2019-11-15 08:13:58.707

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SLIDT_SystemLoginID	SystemLoginLoginDateTime	slSystemLoginID	SystemLogin	SystemLoginID

#### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_SLIDT_LoginDateTime	SystemLoginLoginDateTime	LoginDateTime	Current date and time

#### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SLIDT_SystemLoginID_Length	SystemLoginLoginDateTime	slSystemLoginID	(LEN(slSystemLoginID) = 8)

## 6) SystemLoginLogoutDateTime Table:

Column Name	Data Type	Length	Constraints	Value (Example)
slSystemLoginID	char(8)	8 characers	Foreign Key, Composite Key, Not Null, Check	SL000004
LogoutDateTime	datetime	-	Composite Key, Not Null, Default	2019-11-15 08:13:58.707

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SLODT_SystemLoginID	SystemLoginLogoutDateTime	slSystemLoginID	SystemLogin	SystemLoginID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_SLODT_LogoutDateTime	SystemLoginLogoutDateTime	LogoutDateTime	Current date and time

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SLODT_SystemLoginID_Length	SystemLoginLogoutDateTime	slSystemLoginID	(LEN(slSystemLoginID) = 8)

### 7) Teller Table:

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
TRecordID	int	-	-	Yes- 1	5
TellerID	char(8)	8 characters	Primary Key	Yes – TE000001	TE000004
Branch	varchar(30)	30 characters	Not Null	-	London
FirstName	varchar(20)	20 characters	Not Null	-	Peter
MiddleName	varchar(25)	25 characters	-	-	Jack
LastName	varchar(30)	30 characters	Not Null	-	White
LaneAddress	varchar(40)	40 characters	Not Null	-	Beach Lane
City	varchar(20)	20 characters	Not Null	-	London
EmailAddress	varchar(50)	50 characters	Check		sample@sample. com
slSystemLoginID	char(8)	8 characters	Foreign Key, Not Null, Check	-	SL000002
saAdminID_RegisteredBy	char(8)	8 characters	Foreign Key, Not Null, Check	-	SA000001
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_T_SystemLoginID	Teller	slSystemLoginID	SystemLogin	SystemLoginID
FK_T_AdminID	Teller	saAdminID_Regist eredBy	SystemAdministr ator	AdminID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_T_RegirstrationDateTime	Teller	RegistrationDateTime	Current date and time

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_T_EmailAddress_@	Teller	EmailAddress	(EmailAddress LIKE '%@%')
CHK_T_SystemLoginID_Length	Teller	slSystemLoginID	(LEN(slSystemLoginID) = 8)
CHK_T_AdminID_Length	Teller	saAdminID_Register edBy	(LEN(saAdminID_RegisteredBy) = 8)

### 8) TellerShiftStartDateTime Table:

Column Name	Data Type	Length	Constraints	Value (Example)
tTellerID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	TE00000004
ShiftStartDateTime	datetime	-	Composite Key, Not Null, Default	2019-11-15 08:13:58.707

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_TSSDT_TellerID	TellerShiftStartDateTime	tTellerID	Teller	TellerID

#### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_TSSDT_ShidtStartDateTime	TellerShiftStartDateTime	ShiftStartDateTime	Current date and time

#### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_TSSDT_TellerID_Length	TellerShiftStartDateTime	tTellerID	(LEN(tTellerID) = 8)

### 9) TellerShiftEndDateTime Table:

Column Name	Data Type	Length	Constraints	Value (Example)
tTellerID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	TE00000004
ShiftEndDateTime	datetime	-	Composite Key, Not Null, Default	2019-11-15 08:13:58.707

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_TSED_TellerID	TellerShiftEndDateTime	tTellerID	Teller	TellerID

#### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_TSED_TShiftEndDateTime	TellerShiftEndDateTime	ShiftEndDateTime	Current date and time

#### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_TSED_TellerID_Length	TellerShiftEndDateTime	tTellerID	(LEN(tTellerID) = 8)

**10) TellerPhoneNumber Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
tTellerID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	TE0000004
PhoneNumber	char(10)	10 characters	Composite Key, Not Null, Check	7215587145

Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_TPN_PhoneNumber	TellerPhoneNumber	tTellerID	Teller	TellerID

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_TPN_TellerID_Length	TellerPhoneNumber	tTellerID	(LEN(tTellerID) = 8)
CHK_TPN_PhoneNumber_Length	TellerPhoneNumber	PhoneNumber	(LEN(PhoneNumber) = 10)

### 11) Customer Table:

Column Name	Data Type	Length	Constraints	Value (Example)
PassportNumber	char(9)	9 characters	Primary key, Not Null, Check	456434653
FirstName	varchar(20)	20 characters	Not Null	George
MiddleName	varchar(25)	25 characters	-	Noah
LastName	varchar(30)	30 characters	Not Null	Adam
LaneAddress	varchar(40)	40 characters	Not Null	Beach Lane
City	varchar(20)	20 characters	Not Null	Liverpool
tTellerID_RegisteredBy	char(8)	8 characters	Foreign Key, Not Null, Check	TE000002
RegisteredDateTime	datetime	-	Default	2019-11-15 08:13:58.707

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_C_TellerID	Customer	tTellerID_CreatedBy	Customer	tTellerID_

#### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_C_RegisteredDateTime	Customer	RegisteredDateTime	Current date and time



Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_C_PassportNumber_Length	Customer	PassportNumber	(LEN(PassportNumber) = 9)
CHK_C_TellerID_Length	Customer	tTellerID_CreatedBy	(LEN(tTellerID_CreatedBy) = 8)

**12) CustomerEmailAddress Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
cPassportNumber	char(9)	9 characters	Foreign Key, Composite Key, Not Null, Check	524698753
EmailAddress	varchar(50)	50 characters	Composite Key, Not Null, Check	sample@sample.com

Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_CEM_PassportNumber	CustomerEmailAddress	cPassportNumber	Customer	PassportNumber

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_CEM_PassportNumber_Length	CustomerEmailAddress	cPassportNumber	(LEN(cPassportNumber) = 9)
CHK_CEM_EmailAddress_@	CustomerEmailAddress	EmailAddress	(EmailAddress LIKE '%@%')

### 13) CustomerPhoneNumber Table:

Column Name	Data Type	Length	Constraints	Value (Example)
cPassportNumber	char(9)	9 characters	Foreign Key, Composite Key, Not Null, Check	524689875
PhoneNumber	char(10)	10 characters	Composite Key, Not Null, Check	7215587145

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_CPN_PassportNumber	CustomerPhoneNum ber	cPassportNumber	Customer	PassportNumber

#### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_CPN_PassportNumber_Le ngth	CustomerPhoneNumber	cPassportNumber	(LEN(cPassportNumber) = 9)
CHK_CPN_PhoneNumber_Lengt h	CustomerPhoneNumber	PhoneNumber	(LEN(PhoneNumber) = 10)

**14)      AccountStatus Table:**

<b>Column Name</b>	<b>Data Type</b>	<b>Length</b>	<b>Constraints</b>	<b>Auto-Increment (Starting Value)</b>	<b>Value (Example)</b>
ASRecordID	char(8)	8 characters	-	Yes- 1	5
AccountStatusID	char(8)	8 characters	Primary Key	Yes- AS000001	AS000002
AccountStatus	varchar(10)	10 characters	Not Null	-	Active

**15) AccountNormalSavings Table:**

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
NSAccountNumber	int	-	Primary Key	Yes – 25000001	25000005
NSAccountBalance	money	-	Not Null	-	145.34
asAccountStatusID	char(8)	8 characters	Foreign Key, Check, Not Null	-	AS000002
cPassportNumber	char(8)	8 characters	Foreign Key, Not Null, Check	-	465336534
tTellerID_RegisteredBy	char(8)	8 characters	Foreign Key, Check, Not Null	-	TE000003
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_ANS_AccountStatusID	AccountNormalSavings	asAccountStatusID	AccountStatus	AccountStatusID
FK_ANS_PassportNumber	AccountNormalSavings	cPassportNumber	Customer	PassportNumber
FK_ANS_TellerID	AccountNormalSavings	tTellerID_RegisteredBy	Teller	TellerID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_ANS_RegistrationDateTime	AccountNormalSavings	RegistrationDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_A_AccountStatusID_Length	AccountNormal Savings	asAccountStatusID	(LEN(asAccountStatusID) = 8)
CHK_ANS_PassportNumber_Length	AccountNormal Savings	cPassportNumber	(LEN(cPassportNumber) = 9)
CHK_ANS_TellerID_Length	AccountNormal Savings	tTellerID_Registered By	(LEN(tTellerID_RegisteredBy) = 8)

**16) AccountBonusSavings Table:**

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
BSAccountNumber	int	-	Primary Key	Yes – 45000001	45000005
BSAccountBalance	money	-	Not Null	-	545.34
asAccountStatusID	char(8)	8 characters	Foreign Key, Check, Not Null	-	AS000002
cPassportNumber	char(8)	8 characters	Foreign Key, Not Null, Check	-	465336544
tTellerID_RegisteredBy	char(8)	8 characters	Foreign Key, Check, Not Null	-	TE000003
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_ABS_AccountStatusID	AccountBonusSavings	asAccountStatusID	AccountStatus	AccountStatusID
FK_ABS_PassportNumber	AccountBonusSavings	cPassportNumber	Customer	PassportNumber
FK_ABS_TellerID	AccountBonusSavings	tTellerID_RegisteredBy	Teller	TellerID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_ABS_RegistrationDateTime	AccountBonusSavings	RegistrationDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_ABS_AccountStatusID	AccountBonusSavings	asAccountStatusID	(LEN(asAccountStatusID) = 8)
CHK_ABS_PassportNumber_Length	AccountBonusSavings	cPassportNumber	(LEN(cPassportNumber) = 9)
CHK_ABS_TellerID_Length	AccountBonusSavings	tTellerID_RegisteredBy	(LEN(tTellerID_RegisteredBy) = 8)



**17) AccountPremierSavings Table:**

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
PSAccountNumber	int	-	Primary Key	Yes – 75000001	75000005
PSAccountBalance	money	-	Not Null	-	1045.34
asAccountStatusID	char(8)	8 characters	Foreign Key, Check, Not Null	-	AS000002
cPassportNumber	char(8)	8 characters	Foreign Key, Not Null, Check	-	465336534
tTellerID_RegisteredBy	char(8)	8 characters	Foreign Key, Check, Not Null	-	TE000003
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_APS_AccountStatusID	AccountPremierSavings	asAccountStatusID	AccountStatus	AccountStatusID
FK_APS_PassportNumber	AccountPremierSavings	cPassportNumber	Customer	PassportNumber
FK_APS_TellerID	AccountPremierSavings	tTellerID_RegisteredBy	Teller	TellerID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_APS_RegistrationDateTime	AccountPremierSavings	RegistrationDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_APS_AccountStatusID	AccountPremierSavings	asAccountStatusID	(LEN(asAccountStatusID) = 8)
CHK_APS_PassportNumber_Length	AccountPremierSavings	cPassportNumber	(LEN(cPassportNumber) = 9)
CHK_APS_TellerID_Length	AccountPremierSavings	tTellerID_RegisteredBy	(LEN(tTellerID_RegisteredBy) = 8)

**18)      TransactionStatus Table:**

<b>Column Name</b>	<b>Data Type</b>	<b>Length</b>	<b>Constraints</b>	<b>Auto-Increment (Starting Value)</b>	<b>Value (Example)</b>
TSRecordID	char(8)	8 characters	-	Yes- 1	5
TransactionStatusID	char(8)	8 characters	Primary Key	Yes- TS000001	TS000002
TransactionStatus	varchar(50)	50 characters	Not Null	-	Updated Password

**19) CustomerTransactionDeposit Table:**

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
DTransactionNumber	int	-	Primary Key	Yes - 22000001	22000005
TransactionAmount	money	-	Check	-	250.25
TransactionDateTime	datetime	-	Default	-	2019-11-19 12:12:34.323
tsTransactionStatusID	char(8)	8 characters	Foreign Key, Not Null, Check	-	TS000002
ansNSAccountNumber	int	-	Foreign Key	-	25000003
absBSAccountNumber	int	-	Foreign Key	-	45000002
apsPSAccountNumber	int	-	Foreign Key	-	75000004
tTellerID_ProcessedBy	char(8)	8 characters	Foreign Key, Not Null, Check	-	TE000003

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_CTD_TransactionStatusID	CustomerTransactionDeposit	tsTransactionStatusID	TransactionStatus	TransactionStatusID
FK_CTD_NSAccountNumber	CustomerTransactionDeposit	ansNSAccountNumber	AccountNormalSavings	NSAccountNumber
FK_CTD_BSAccountNumber	CustomerTransactionDeposit	absNSAccountNumber	AccountNormalSavings	NSAccountNumber
FK_CTD_PSAccountNumber	CustomerTransactionDeposit	apsPSAccountNumber	AccountPremierSavings	PSAccountNumber
FK_CTD_TellerID	CustomerTransactionDeposit	tTellerID_ProcessedBy	Teller	TellerID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_CTD_TransactionDateTime	CustomerTransactionDeposit	TransactionDateTime	Current date and time

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_CTD_TransactionStatusID_Length	CustomerTransactionDeposit	tsTransactionStatusID	(LEN(tsTransactionStatusID) = 8)

CHK_CTD_TransactionAmount_Amount	CustomerTransactionDeposit	TransactionAmount	(TransactionAmount > 0.00 )
CHK_CTD_NSAccountNumber_BSAccountNumber_PSAccountNumber_Length	CustomerTransactionDeposit	ansNSAccountNumber, absBSAccountNumber, apsPSAccountNumber	( (LEN)(ansNSAccountNumber) = 8) OR (LEN(absBSAccountNumber) = 8) OR (LEN(apsPSAccountNumber) = 8) )
CHK_CTD_NSAccountNumber_BSAccountNumber_PSAccountNumber_NotNullVerification	CustomerTransactionDeposit	ansNSAccountNumber, absBSAccountNumber, apsPSAccountNumber	((ansNSAccountNumber = ' ') OR (absBSAccountNumber = ' ') OR (apsPSAccountNumber = ' '))
CHK_CTD_TellerID_Length	CustomerTransactionDeposit	tTellerID_ProcessedBy	(LEN(tTellerID_ProcessedBy) = 8)

#### Trigger Details

Trigger Name	Table	Affecting Table	Affecting Column	Description
TR_UpdateAccountBalanceAfterDeposit	CustomerTransactionDeposit	AccountNormalSavings, AccountBonusSavings, AccountPremierSavings	NSAccountBalance, BSAccountBalance, PSAccountBalance	After a deposit transaction record is inserted, the customer's account balance will be increased.

**20)      CustomerTransactionWithdrawal Table:**

<b>Column Name</b>	<b>Data Type</b>	<b>Length</b>	<b>Constraints</b>	<b>Auto-Increment (Starting Value)</b>	<b>Value (Example)</b>
WTransactionNumber	int	-	Primary Key	Yes - 22000001	44000005
TransactionAmount	money	-	Check	-	250.25
TransactionDateTime	datetime	-	Default	-	2019-11-19 12:12:34.323
tsTransactionStatusID	char(8)	8 characters	Foreign Key, Not Null, Check	-	TS000001
ansNSAccountNumber	int	-	Foreign Key	-	25000003
ansBSAccountNumber	int	-	Foreign Key	-	45000002
apsPSAccountNumber	int	-	Foreign Key	-	75000004
tTellerID_ProcessedBy	char(8)	8 characters	Foreign Key, Not Null	-	TE000003

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_CTD_TransactionStatusID	CustomerTransactionWithdrawal	tsTrasnactionStatusID	TransactionStatus	TransactionStatusID
FK_CTD_NSAccountNumber	CustomerTransactionWithdrawal	ansNSAccountNumber	AccountNormalSavings	NSAccountNumber
FK_CTD_BSAccountNumber	CustomerTransactionWithdrawal	absNSAccountNumber	AccountNormalSavings	NSAccountNumber
FK_CTW_PSAccountNumber	CustomerTransactionWithdrawal	apsPSAccountNumber	AccountPremierSavings	PSAccountNumber
FK_CTW_TellerID	CustomerTransactionWithdrawal	tTellerID*	Teller	TellerID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_CTW_TransactionDateTime	CustomerTransactionWithdrawal	TransactionDateTime	Current date and time



### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_CTW_Transaction StatusID_Length	CustomerTrasacti onWithdrawal	tsTransactionStatusID	(LEN(tsTransactionStatusID = 8))
CHK_CTW_Transaction Amount_Amount	CustomerTransact ionWithdrawal	TransactionAmount	(TransactionAmount > 0.00 )
CHK_CTW_NSAccount Number_BSAccountNu mber_PSAccountNumber _Length	CustomerTrasacti onWithdrawal	ansNSAccountNumber, absBSAccountNumber, apsPSAccountNumber	( (LEN)(ansNSAccountNumber) = 8) OR (LEN(absBSAccountNumber) = 8) OR (LEN(apsPSAccountNumber) = 8) )
CHK_CTW_NSAccount Number_BSAccountNu mber_PSAccountNumber _NotNullVerification	CustomerTrasacti onWithdrawal	ansNSAccountNumber, absBSAccountNumber, apsPSAccountNumber	((ansNSAccountNumber = ' ') OR (absBSAccountNumber = ' ') OR (apsPSAccountNumber = ' '))
CHK_CTW_TellerID_Le ngth	CustomerTrasacti onWithdrawal	tTellerID_ProcessedBy	(LEN(tTellerID_ProcessedBy = 8))

### Trigger Details

Trigger Name	Table	Affecting Table	Affecting Column	Description
TR_UpdateAcco untBalanceAfter Withdrawal	CustomerTrasac tionWithdrawal	AccountNormalSavings, AccountBonusSavings, AccountPremierSavings	NSAccountBalance, BSAccountBalacne, PSAccountBalance	After a withdrawal transaction is inserted, the customer's account balance will be deducted.

**21) Manager Table:**

Column Name	Data Type	Length	Constraints	Auto-Increment (Starting Value)	Value (Example)
MRecordID	int	-	-	Yes- 1	5
ManagerID	char(8)	8 characters	Primary Key	Yes – MA000001	MA000002
Branch	varchar(30)	30 characters	Not Null	-	Liverpool
FirstName	varchar(20)	20 characters	Not Null	-	George
MiddleName	varchar(25)	25 characters	-	-	Noah
LastName	varchar(30)	30 characters	Not Null	-	Adam
LaneAddress	varchar(40)	40 characters	Not Null	-	Beach Lane
City	varchar(20)	20 characters	Not Null	-	Liverpool
EmailAddress	varchar(50)	50 characters	Check	-	sample@sample .com
slSystemLoginID	char(8)	8 characters	Foreign Key, Not Null, Check	-	SL000004
saAdminID_RegisteredBy	char(8)	8 characters	Foreign Key, Not Null, Check	-	SA000002
RegistrationDateTime	datetime	-	Default	-	2019-11-15 08:13:58.707

### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_M_SystemLoginID	Manager	slSystemLoginID	SystemLogin	SystemLoginID
FK_M_AdminID	Manager	saAdminID_RegisteredBy	SystemAdministrator	AdminID

### Default Constraint Details

Constraint Name	Table	Column	Value
DFT_M_RegistrationDateTime	Manager	RegistrationDateTime	Current date and time

### Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_M_EmailAddress_@	Manager	EmailAddress	(EmailAddress LIKE '% @%')
CHK_M_SystemLoginID_Length	Manager	slSystemLoginID	(LEN(slSystemLoginID) = 8)
CHK_M_AdminID_Length	Manager	saAdminID_RegisteredBy	(LEN(saAdminID_RegisteredBy) = 8)

22) **ManagerPhoneNumber Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID	char(8)	8 characters	Foreign Key, Composite Key, Not Null, Check	MA000003
PhoneNumber	char(10)	10 characters	Composite Key, Not Null, Check	7215584145

Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_M_ManagerID	ManagerPhoneNumber	mManagerID	Manager	ManagerID

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_M_ManagerID_Length	ManagerPhoneNumber	mManagerID	(LEN(mManagerID) = 8)
CHK_M_PhoneNumber_Length	ManagerPhoneNumber	PhoneNumber	(LEN(PhoneNumber) = 10)

**23)      ModificationStatus Table:**

<b>Column Name</b>	<b>Data Type</b>	<b>Length</b>	<b>Constraints</b>	<b>Auto-Increment (Starting Value)</b>	<b>Value (Example)</b>
ModificationStatusID	int	-	Primary Key	Yes- 1	5
ModificationStatus	varchar(50)	50 characters		-	Revert Transaction

**24) TellerManageCustomer Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
tTellerID_EditedBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	TE000002
cPassportNumber	char(9)	9 characters	Composite key, Foreign Key, Not Null, Check	456534653
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	2

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_TMC_TellerID	TellerManageCustomer	tTellerID	Teller	TellerID
FK_TMC_PassportNumber	TellerManageCustomer	cPassportNumber	Customer	PassportNumber
FK_TMC_ModificationStatusID	TellerManageCustomer	msModificationStatusID	ModificationStatus	msModificationStatusID

**Default Constraint Details**

Constraint Name	Table	Column	Value
DFT_TMC_EditDateTime	TellerManageCustomer	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_TMC_TellerID_Length	TellerManageCustomer	tTellerID	(LEN(tTellerID) = 8)
CHK_M_PassportNumber_Length	TellerManageCustomer	cPassportNumber	(LEN(cPassportNumber) = 9)

**25) ManagerManageAccountNormalSavings Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID_EditBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	MA000002
ansNSAccountNumber	int	-	Composite Key, Foreign Key, Not Null, Check	25000004
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	2

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_MMANS_ManagerID	ManagerManageAccountNormalSavings	mManagerID	Manager	ManagerID
FK_MMANS_NSAccountNumber	ManagerManageAccountNormalSavings	ansNSAccountNumber	AccountNormalSavings	NSAccountNumber
FK_MMANS_ModificationStatusID	ManagerManageAccountNormalSavings	msModificationStatusID	ModificationStatus	msModificationStatusID



Default Constraint Details

Constraint Name	Table	Column	Value
DFT_MMANS_EditDate Time	ManagerManageAccount NormalSavings	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_MMANS_ManagerID_ Length	ManagerManageAcc ountNormalSavings	mManagerID	(LEN(mManageID) = 8)
CHK_MMANS_NSAccountN umber_Length	ManagerManageAcc ountNormalSavings	ansNSAccountNu mber	(LEN(ansNSAccountNumber) = 8)

**26) ManagerManageAccountBonusSavings Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID_EditBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	MA000002
absBSAccountNumber	int	-	Composite Key, Foreign Key, Not Null, Check	45000005
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	3

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_MMABS_ManagerID	ManagerManageAccount BonusSavings	mManagerID	Manager	ManagerID
FK_MMABS_BSAccountNumber	ManagerManageAccount BonusSavings	absBSAccount Number	AccountBonusSa vings	BSAccountNumber
FK_MMABS_ModificationStatusID	ManagerManageAccount BonusSavings	msModificatio nStatusID	ModificationStatu s	msModificationStat usID
FK_MMABS_ModificationStatusID	ManagerManageAccount BonusSavings	msModificatio nStatusID	ModificationStatu s	msModificationStat usID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_MMABS_EditDate Time	ManagerManageAccount BonusSavings	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_MMABS_ManagerID_L ength	ManagerManageAcc ountBonusSavings	mManagerID	(LEN(mManageID) = 8)
CHK_MMABS_BSAccountN umber_Length	ManagerManageAcc ountBonusSavings	absBSAccountNu mber	(LEN(absBSAccountNumber) = 8)

**27) ManagerManageAccountPremierSavings Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID_EditBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	MA000002
absPSAccountNumber	int	-	Composite Key, Foreign Key, Not Null, Check	75000005
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	4

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_MMAPS_ManagerID	ManagerManageAccountPremierSavings	mManagerID	Manager	ManagerID
FK_MMAPS_BSAccountNumber	ManagerManageAccountPremierSavings	absPSAccountNumber	AccountPremierSavings	PSAccountNumber
FK_MMAPS_ModificationStatusID	ManagerManageAccountPremierSavings	msModificationStatusID	ModificationStatus	msModificationStatusID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_MMAPS_EditDateTime	ManagerManageAccountPremierSavings	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_MMAPS_ManagerID_Length	ManagerManageAccountPremierSavings	mManagerID	(LEN(mManageID) = 8)
CHK_MMAPS_BSAccountNumber_Length	ManagerManageAccountPremierSavings	absPSAccountNumber	(LEN(absPSAccountNumber) = 8)

**28) ManagerManageCustomerTransactionDeposit Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID_EditBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	MA000002
ctdDTransactionNumber	int	-	Composite Key, Foreign Key, Not Null, Check	22000004
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	4

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_MMCTD_ManagerID	ManagerManageCustomerTransactionDeposit	mManagerID	Manager	ManagerID
FK_MMCTD_DTransactionNumber	ManagerManageCustomerTransactionDeposit	ctdDTransactionNumber	CustomerTransactionDeposit	DTransactionNumber
FK_MMCTD_ModificationStatusID	ManagerManageCustomerTransactionDeposit	msModificationStatusID	ModificationStatus	msModificationStatusID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_MMCTD_EditDate Time	ManagerManageCustome rTransactionDeposit	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_MMCTD_ManagerID_ Length	ManagerManageCus tomerTransactionDe posit	mManagerID	(LEN(mManageID) = 8)
CHK_MMCTD_DTransaction Number _Length	ManagerManageCus tomerTransactionDe posit	ctdDTransactionN umber	(LEN(ctdDTransactionNumber) = 8)

**29) ManagerManageCustomerTransactionWithdrawal Table:**

Column Name	Data Type	Length	Constraints	Value (Example)
mManagerID_EditBy	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	MA000002
ctwWTransactionNumber	int	-	Composite Key, Foreign Key, Not Null, Check	44000006
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStatusID	int	-	Foreign Key, Not Null	5

**Foreign Key Details**

Key Name	Table	Column	Reference Table	Reference Column
FK_MMCTW_ManagerID	ManagerManageCustomerTransactionWithdrawal	mManagerID	Manager	ManagerID
FK_MMCTW_WTransactionNumber	ManagerManageCustomerTransactionWithdrawal	ctwWTransactionNumber	CustomerTransactionWithdrawal	WTransactionNumber
FK_MMCTW_ModificationStatusID	ManagerManageCustomerTransactionWithdrawal	msModificationStatusID	ModificationStatus	msModificationStatusID



Default Constraint Details

Constraint Name	Table	Column	Value
DFT_MMCTW_EditDate Time	ManagerManageCustome rTransactionWithdrawal	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_MMCTW_ManagerID_ Length	ManagerManageCus tomerTransactionWi thdrawal	mManagerID	(LEN(mManageID) = 8)
CHK_MMCTW_WTransactio nNumber _Length	ManagerManageCus tomerTransactionWi thdrawal	ctwWTransaction Number	(LEN(ctwWTransactionNumbe r) = 8)

### 30) SystemAdministratorManageSystemLogin Table:

Column Name	Data Type	Length	Constraints	Value (Example)
saAdminID_Edited By	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	SA000001
slSystemLoginID	char(8)	8 characters	Composite Key, Foreign Key, Not Null, Check	SL000004
EditDateTime	datetime	-	Composite Key, Default	2019-11-15 08:13:58.707
msModificationStat usID	int	-	Foreign Key, Not Null	6

#### Foreign Key Details

Key Name	Table	Column	Reference Table	Reference Column
FK_SAMSL_AdminID	SystemAdministratorMa nageSystemLogin	saAdminID	Manager	AdminID
FK_SAMSL_System LoginID	SystemAdministratorMa nageSystemLogin	slSystemLogin ID	CustomerTransact ionDeposit	slSystemLoginID
FK_ SAMSL_Modificatio nStatusID	SystemAdministratorMa nageSystemLogin	msModificatio nStatusID	ModificationStatu s	msModificationStat usID

Default Constraint Details

Constraint Name	Table	Column	Value
DFT_SAMSL_EditDateTime	SystemAdministratorManageSystemLogin	EditDateTime	Current date and time

Check Constraint Details

Constraint Name	Table	Column	Condition
CHK_SAMSL_AdminID_Length	SystemAdministratorManageSystemLogin	saAdminID	(LEN(saAdminID) = 8)
CHK_SAMSL_SystemLoginID_Length	SystemAdministratorManageSystemLogin	slSystemLoginID	(LEN(slSystemLoginID) = 8)