

PostgreSQL database “intro_telecom”

Database model has 13 data tables:

phone – main db table with phone number, package code and other data

user_data – to store data of each user who interacts with the application

role – can be ADMIN or CUSTOMER

admin – personal data of the administrator

customer – personal data of the customer

customer_phone – to assign a phone to the customer

package_plan – stores types of monthly packages

package_frame – monthly quota of a specific package type

addon – stores types of add-ons

addon_frame – monthly quota of a specific add-on type requested by the customer

service – stores types of mobile services

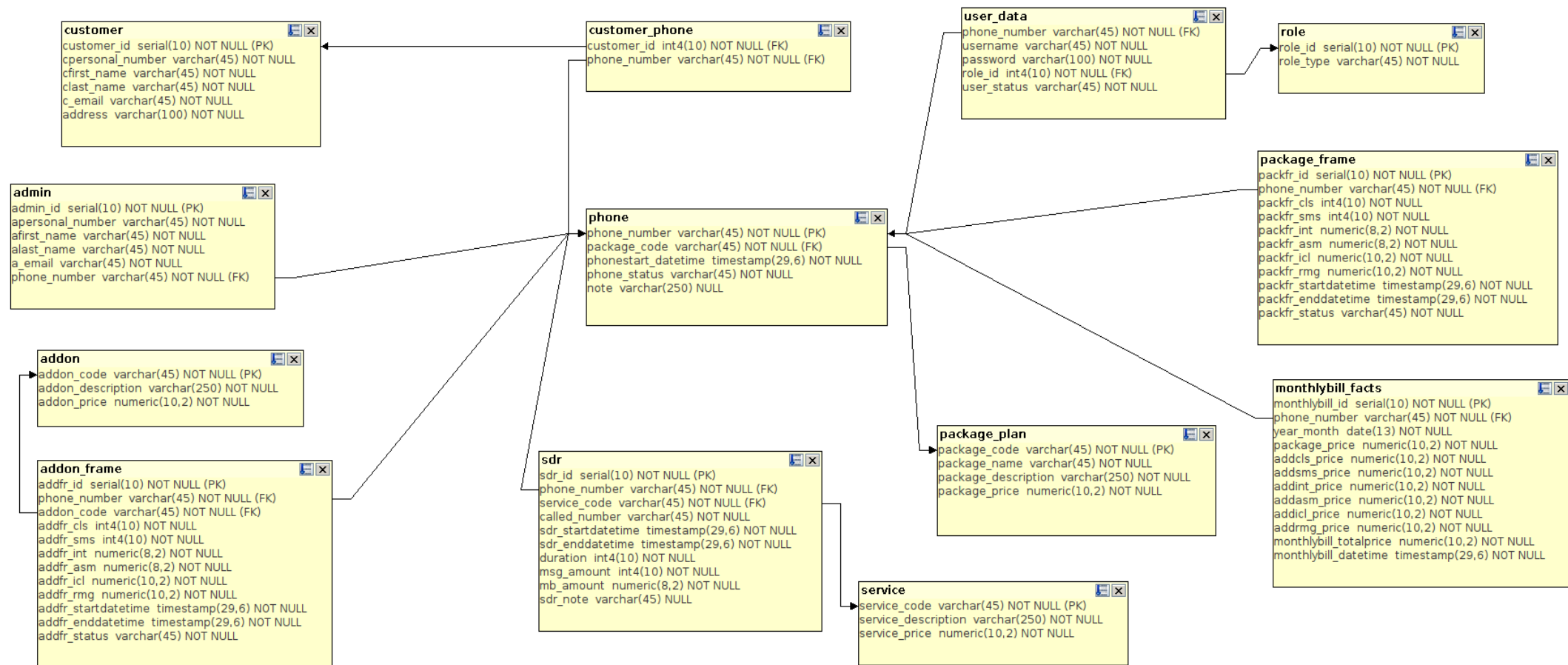
sdr – for storing data on each individual service record that customer performed via the phone number

monthlybill_facts – to store data about each individual monthly bill

			intro_telecom	db_tables			
admin	customer	customer_phone	phone	user_data	role	package_plan	package_frame
admin_id	customer_id	customer_id	phone_number	phone_number	role_id	package_code	packfr_id
apersonal_number	cpersonal_number	phone_number	package_code	username	role_type	package_name	phone_number
afirst_name	cfirst_name		phonestart_datetime	password		package_description	packfr_cls
alast_name	clast_name		phone_status	role_id		package_price	packfr_sms
a_email	c_email		note	user_status			packfr_int
phone_number	address						packfr_asm
							packfr_icl
							packfr_rmg
							packfr_startdatetime
							packfr_enddatetime
							packfr_status
	addon	addon_frame	service	sdr	monthlybill facts		
	addon_code	addfr_id	service_code	sdr_id	monthlybill_id		
	addon_description	phone_number	service_description	phone_number	phone_number		
	addon_price	addon_code	service_price	service_code	year_month		
		addfr_cls		called_number	package_price		
		addfr_sms		sdr_startdatetime	addcls_price		
		addfr_int		sdr_enddatetime	addsms_price		
		addfr_asm		duration	addint_price		
		addfr_icl		msg_amount	addasm_price		
		addfr_rmg		mb_amount	addicl_price		
		addfr_startdatetime		sdr_note	addrmg_price		
		addfr_enddatetime			monthlybill_totalprice		
		addfr_status			monthlybill_datetime		

The script file for database is "**create_db.sh**" with:

- `intro_telecom_01_database.sql` - file for database creation.
- `intro_telecom_02_tables.sql` - file for table creation.
- `intro_telecom_03_tables_initial_population.sql` - the basic data need to set roles, package plans, add-on service codes, codes for service detail records and data for the first ADMIN role User and its phone.



This is a graph generated by the SquirrelL SQL Client. It shows db tables and their relations with primary keys (PK) and foreign keys (FK).

A central part is the **phone** table represented by a unique phone number. The **phone_ number** is the most important piece of data which is used as the primary key or foreign key for many db tables.

ENTITY

Entity classes correspond to tables in the database:

<u>class</u>	<u>db tables</u>
AddOn.java	addon
AddonFrame.java	addon_frame
Admin.java	admin
Customer.java	customer
MonthlyBillFacts.java	monthlybill_facts
PackageFrame.java	package_frame
PackagePlan.java	package_plan
Phone.java	phone
PhoneService.java	service
Role.java	role
ServiceDetailRecord.java	sdr
User.java	user_data

NOTE: **customer_phone** table is a join table with no relevant entity class. It depicts the relationship between customers and phones, i.e. it shows which phone belongs to a particular customer.