Aby 3NF bola nestratova musime pridat relaciu s klucom.

ticket_ID, line_dep_ID nie su na ziadnej pravej strane

Lahko overime ze {ticket_ID, line_dep_ID} je kluc. Atributy, ktore nevyplyvaju priamo z FZ
ticket_ID -> a line_dep_ID -> su:
passenger_km, discount_rate, discount_min_km, stop_ID, line_stop_ID

ticket_ID -> passenger_ID -> discount_min_km -> discount_rate
ticket_ID -> passenger_ID -> passenger_km
ticket_ID -> arrival_stop_ID -> stop_ID
line_dep_ID -> line_ID
line_ID, stop_ID -> line_stop_ID

Kedze sme na konverziu do 3NF pouzili standardny algoritmus, ked pridame {ticket_ID, line_dep_ID} mame bezstratovu 3NF zachovavajucu funkcne zavislosti.

BCNF mozu pokazit iba nebinarne relacie.

1.) {line_ID, line_dept_time, bus_type}

Pokazit mozu iba 1 -> 1:

$\{line\_ID\}^+$ = {line_last_stop_order, line_ID} -> nekazi
$\{line\_dept\_time\}^+$ = {line_dept_time} -> nekazi
$\{bus\_type\}^+$ = {bus_type} -> nekazi

2.) {line_ID, stop_ID, line_stop_next_km}

{line_ID} -> nekazi
$\{stop\_ID\}^+$ = {stop_ID} -> nekazi
$\{line\_stop\_next\_km\}^+$ = {line_stop_next_km} -> nekazi

3.) {line_ID, stop_ID, line_stop_next_time_interval}

line_ID -> nekazi
stop_ID -> nekazi
$\{line\_stop\_next\_time\_interval\}^+$ = {line_stop_next_time_interval} -> nekazi

4.) {line_stop_ID, line_ID, stop_ID}

plati line_stop_ID -> line_ID, stop_ID, ale line_stop_ID je kluc
line_ID -> nekazi
stop_ID -> nekazi

Kedze sme nemuseli dekomponovat ziadne relacie z 3NF, mame bezstratovu dekompoziciu v BCNF.