# Háskólinn í Reykjavík

## Gagnasafnsfræði

# Homework 5

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# 1 Boats

## 1.1 Important FDs

$Z \to BL$
$Z \to T$

## 1.2 Decomposition and Normal Form

Boats0(<u>BL</u>, <u>BNo</u>, Z, BN, SSN) in BCNF
Boats1(<u>Z</u>, T) in BCNF

# 2 Coffees

## 2.1 Important FDs

$DID \to DN$
$DID \to DS$
$CID \to CN$
$CID \to CM$

## 2.2 Decomposition and Normal Form

Coffees0(<u>DID</u>, <u>HID</u>, <u>CID</u>) in BCNF
Coffees1(<u>DID</u>, DN, DS) in BCNF
Coffees2(<u>CID</u>, CN, CM) in BCNF

# 3 Customers

## 3.1 Important FDs

$CID \to CN$
$CID \to CS$
$CID \to CNr$
$CID \to CZ$
$CID \to EID$
$CZ \to CC$

## 3.2 Decomposition and Normal Form

Customers1(<u>CZ</u>, CC) in BCNF
Customers2(<u>CID</u>, CN, CS, CNr, CZ, EID) in BCNF

Customers0(<u>CID</u>)

# 4 Rentals

## 4.1 Important FDs

$PID \rightarrow PN$
$HID \rightarrow HS$
$HID \rightarrow HZ$
$HZ \rightarrow HC$

## 4.2 Decomposition and Normal Form

Rentals0(<u>PID</u>, <u>HID</u>, S) in 3NF
Rentals1(<u>PID</u>, PN) in BCNF
Rentals2(<u>HID</u>, HS, HZ) in BCNF
Rentals3(<u>HZ</u>, HC) in BCNF