harj_lukot_v2.pdf

Task 1

```
Run | New Tab
LOCK TABLES ACCOUNT READ;  1ms
```

```
Run | New Tab | JSON
SELECT balance FROM account;  1ms
```

The second connection is able to read the data because the lock allows read.

```
Run | New Tab
UPDATE account
SET balance = 300
WHERE id = 105;
```

The update is not possible because the lock does not allow write.

```
Run | New Tab
UNLOCK TABLES;  1ms
```

After unlocking the tables the query is able to update the data.

Task 2

```
-- Active: conn1
Run | New Tab
LOCK TABLES account WRITE;
```

```
-- Active: conn2
Run | New Tab | JSON
SELECT balance FROM account;
```

The read hangs.

```
-- Pay 3% interest to all accounts

Run | New Tab
UPDATE account
SET balance = balance * 1.03;

Run | New Tab
UNLOCK TABLES;  1ms
```

After unlocking the tables the query is able to read the data with the interest added. The lock stopped the query from reading the data.

Task 3

```
-- Active: conn1
Run | New Tab | JSON
SELECT balance FROM account WHERE id = 105 FOR UPDATE;
```

```
-- Active: conn2
Run | New Tab
UPDATE account
SET balance = balance + 100
WHERE id = 105;
```

The update hangs.

```
-- Active: conn1
Run | New Tab
UPDATE TILI SET saldo = saldo + 100 WHERE tili_id = 105;
Run | New Tab
COMMIT;
```

The update is possible after committing the transaction.

The update hangs because the tables are write locked.

Task 4