

## Normalization

The table below represents employees working on various contracts.

empID	contractNo	hours	lastName	firstName	state	branchNo
1135	C1024	16	Smith	John	Illinois	1
1057	C1024	16	Smith	Harry	Illinois	1
1058	C0006	20	Simpson	Maggie	Illinois	2
1068	C1025	20	Adler	Rachel	Maryland	3
1135	C1025	20	Smith	John	Maryland	3
1068	C5321	40	Adler	Rachel	Maryland	3
1234	C6651	15	Potter	Harry	New York	4
1234	C5321	40	Potter	Harry	Maryland	3

1. What is the primary key?

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2. Please list all functional dependencies that violate 2NF?

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3. Please list all functional dependencies that violate 3NF?

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4. Fix any 2NF violations and draw the new tables you have and their attributes. Fill in the rows. Remember to remove redundant rows. Specify the primary key by underlining the appropriate attribute(s) for each table.

5. Using the latest updated tables, fix any 3NF violations and draw the new tables you have and their attributes. Fill in the rows. Remember to remove redundant rows. Specify the primary key by underlining the appropriate attribute(s) for each table.