Leo Forster
Maximilian Prinz
Bastian Simon

1. Deanonymization

Using Table 2, we can infer possible favorite movie/series candidates for each person, using the assumption, that each person gives their favorites a full 5 star rating. Analog, we can infer possible non-favorites, using the assumption, that, when a review has less than 5 stars, the movie or series is not a favorite of this person.

Anna: favorite: Avatar 2, non-favorite: The Last Of Us

Josh: favorite: Black Panther 2, non-favorite: rick and Morty, Lost

Lewis: favorite: n.a., non-favorite: Scream, El Camino

Lisa: favorite: Avatar 2, non-favorite: Spider-Man: No Way Home

Sarah: favorite: Spider-Man: No Way Home, non-favorite: n.a.

Tim: favorite: Rick and Morty, non-favorite: The Big Bang Theory

1.1 (a)

Sarah: You can link Sarah to the 5th entry of the first table, revealing her gender, age, city, favorite movie & series and her relationship status.
You can link the entry to Sarah, because she is the only one having Spider-Man: No Way Home under her favorite-candidates. Also, having not left a review about The Last of Us doesn't contradict this being her favorite series.

Anna: For Anna, only the last entry qualify based on her possible favorites/ non-favorites, but, using this criteria, Lisa qualifies equally likely in this case, because both have Avatar 2 under their favorite-candidates. So you can't extract information about Anna from the first table.

1.2 (b)

Row 2: Sam, since Lewis ratings would be incosistent with El Camino being his favorite movie, so only Sam remains

Row 3: Josh, gave Plack Panther 2 a good review, thus likely to be his favorite movie

Row 4: Tim, gave Rick and Morty a good review, thus likely to be his favorite series

Row 6: Lewis, since his ratings don't contradict with Minions 2 & Rick and Morty being his favorite movie/series

Leo Forster
Maximilian Prinz
Bastian Simon

2. Employers and Employees

3. Separated NSA Entity-Relationship Model

1. You could possibly infer unregistered residents or illegal subletting
2. You could possibly enable profiling for targeted advertising or health-related inferences
3. You could possibly link both ER models by matching the forename, surname and dateOfBirth of customers to firstname, lastname and birthday of citizens. Given the connected ER model, you could possible detect unregistered or hidden persons by matching excess food purchases with household size.