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Project 7 – Normalize

Step 1

1. Starting schema: R
2. Decompose on {birthplace} –> {continent}
3. Results:
   - R1 = {birthplace, continent}
   - R2 = {birthplace, composer, work, setting, era, era_dates}

Step 2

1. Starting schema: R2
2. Decompose on {composer} –> {birthplace}
3. Results:
   - R3 = {birthplace, composer}
   - R4 = {composer, work, setting, era, era_dates}

Step 3

1. Starting schema: R4
2. Decompose on {composer, work} –> {setting}
3. Results:
   - R5 = {composer, work, setting}
   - R6 = {composer, work, era, era_dates}

Step 4

1. Starting schema: R6
2. Decompose on {era} –> {era_dates}
3. Results:
   - R7 = {era, era_dates}
   - R8 = {composer, work, era}

Final Database:

- R1 = {birthplace, continent}, only FD is {birthplace} –> {continent}
- R3 = {birthplace, composer}, only FD is {composer} –> {birthplace}
- R5 = {composer, work, setting}, only FD is {composer, work} –> {setting}
- R7 = {era, era_dates}, only FD is {era} –> {era_dates}
- R8 = {composer, work, era}