**Advanced Data Management**

**2022/2023**

**Practical Assignment #1  
Aggregate-oriented logical design**

**Student Id #1: 4989646 Student Id #2: 4825087**

**Name #1: Lorenzo Name #2: Pezzano**

**Surname #1: Foschi Surname #2:** **Enrico**

**Output STEP 1: Workload formalization**

**Q1. Determine the quantity, the offered price and the user details for all the offers of a given product**

**E = Product**

**LS = [Product(IdProd)\_!]**

**LP = [Offer(price)\_F(quantity), User\_DF]**

**Q2. Determine all product details for a given offer**

**E = Offer**

**LS = [Offer(IdO)\_!]**

**LP = [Product\_F]**

**Q3. Determine the users that like the products with a given description**

**E = Product**

**LS = [Product(Description)\_!]**

**LP = [User(IdU)\_L]**

**Q4. Determine all information for a given user, included the related geographical area**

**E = User**

**LS = [User(IdU)\_!]**

**LP = [User\_!, Region(IdRegion)\_I]**

**Q5. Determine the texts of the comments related to products with a given base price, together with the price and the date of the offers received for those products**

**E = Product**

**LS = [Product(BasePrice)\_!]**

**LP = [Comment(Text)\_R, Offer(Price, Timestamp)\_F]**

**Q6. Determine the texts of the comments provided by a given user in a given period, together with the description and the base price of the product they refer to**

**E = Comment**

**LS = [User(IdU)\_W, Comment(Timestamp)\_!]**

**LP = [Comment(Text)\_!, Product(Description, BasePrice)\_R]**

**Q7. Determine the regions of the clients that did offers for a given product**

**E = Product**

**LS = [Product(IdProb)\_!]**

**LP = [Region(idRegion)\_IDF]**

**Q8. Determine the base price of the products of a given category**

**E = Category**

**LS = [Category(IdCat)\_!]**

**LP = [Product(BasePrice)\_D]**

**THE OUTPUT OF STEP 2 IS THE ANNOTATED ENTITY RELATIONSHIP DIAGRAM, THAT HAS TO BE DELIVELERED TOGETHER WITH THIS FILE**

**Output STEP 3: Aggregate-oriented logical schema**

**Offer: {**

**IdO,**

**BasePrice, IdProd, Description**

**}**

**User: {**

**IdU, Name, Birthdate,**

**IdRegion**

**}**

**Comment: {**

**IdComm, Text, Timestamp,**

**IdU,**

**BasePrice, Description**

**}**

**Category: {**

**IdCat,**

**of: [{ Product: {BasePrice}}]**

**}**

**Product: {**

**IdProd, BasePrice, Description,**

**offered: [{ User: {IdU, Name, Birthdate}}]**

**related: [{ Comment: {Text}}]**

**has: [{ Offer: {Timestamp, Price}}]**

**in: [{{ Region: {IdRegion}}]**

**}**