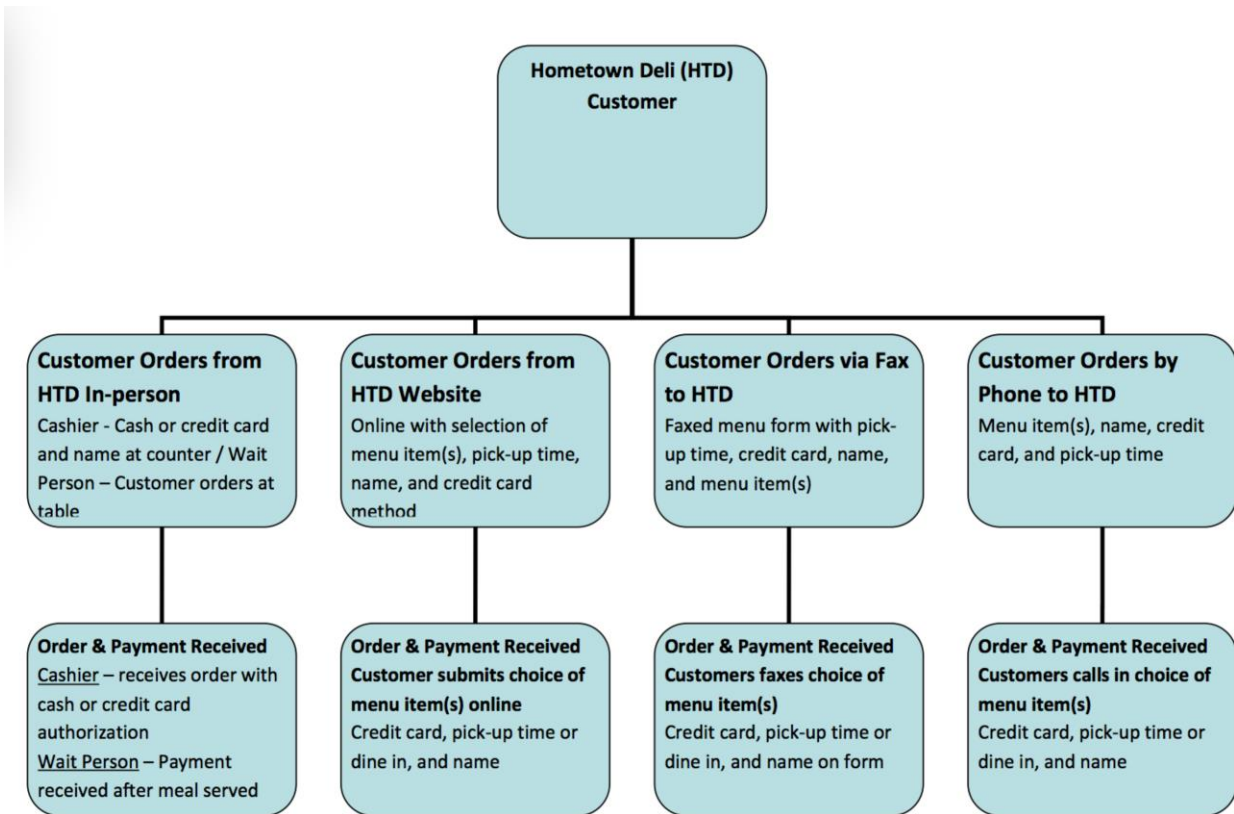# Business Process Engineering Exam
Prof. Ernesto Damiani
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The exam is open book, open notes.
Please make sure that you write your name, surname and student number on your exam paper.

The picture below shows four core processes of a chain of deli shops, HomeTown Deli (HTD), corresponding each to a different way of ordering take-away deli food on the part of HTD customers.

Hometown Deli (HTD) Customer

Customer Orders from HTD In-person	Customer Orders from HTD Website	Customer Orders via Fax to HTD	Customer Orders by Phone to HTD
Cashier - Cash or credit card and name at counter / Wait Person – Customer orders at table	Online with selection of menu item(s), pick-up time, name, and credit card method	Faxed menu form with pick-up time, credit card, name, and menu item(s)	Menu item(s), name, credit card, and pick-up time

Order & Payment Received	Order & Payment Received	Order & Payment Received	Order & Payment Received
Cashier – receives order with cash or credit card authorization / Wait Person – Payment received after meal served	Customer submits choice of menu item(s) online / Credit card, pick-up time or dine in, and name	Customers faxes choice of menu item(s) / Credit card, pick-up time or dine in, and name on form	Customers calls in choice of menu item(s) / Credit card, pick-up time or dine in, and name

Exercise 1 (8 points)
Provide a business process model for one of the processes shown in the picture, including activities such as payment, food preparation, food packaging and delivery. Add all the activities you deem necessary/useful.
Draw a detailed BPMN diagram of the process, highlighting pools, swimlanes, artefacts and synch primitives.

Esercizio 2 (8 punti)
HTD has decided to offer to other companies the possibility of featuring their logo and advertisements on its food packagings. Provide a value model showing the value transfer interfaces among the different actors (HTD, advertising company, customer, and all other actors you deem necessary/useful).
Would the model be different if HTD f- instead of featuring advertisements – would publish for free announcements by local charities advertising their donation campaigns?

Esercizio 3 (8 punti)
Convert the BPMN diagram of Exercise 1
  (a) into a BPEL orchestration, specifying ALL service interfaces invoked by BPEL.
  (b) into a WS-CDL choreography.

Esercizio 4 (6 punti)

Use the GQM (Goal-Question-Metrics) technique to design a KPI for your process. Specify the Goal whose achievement the KPI will assess and the Question the KPI is an answer to. Discuss how the KPI can be computed and the reports to be generated.