

8. Function Points

The application under investigation allows to manage a list of restaurants, managing the following information:

- Restaurant code;
- Chain/Single restaurant;
- VAT number;
- Name of the restaurant;
- Street code;
- Street number;
- City;
- Province;
- Type code;
- Opening date.

You also want to manage a list of types of restaurants:

- Type code;
- Type description.

A street directory on the Web, external to the application, lists all the streets with a unique code:

- Street code;
- Street name;
- Coordinates.

The features to be implemented are:

- Insertion of a restaurant with the code of an existing type;
- Restaurant modification (whose search is done with the restaurant code);
- Restaurant cancellation;
- Inclusion of restaurant types in the types list;
- Modification of the type of restaurants in the types list (whose search is done with the Type code);
- Cancellation of type of restaurant;
- Display all restaurants with restaurant data, coordinates, street name, type description and total count;
- Single restaurant display with restaurant data, coordinates, street name, type description.

Calculate the dimension in Function Points of the above application, by providing all the explanations of your calculus and motivations for your choices. Consider the following tables:

ILF/EIF complexity

Ret/Det	1-19 Det	20-50 Det	51+ Det
1 Ret	Low (7/5)	Low (7/5)	Medium (10/7)
2-5 Ret	Low (7/5)	Medium (10/7)	High (15/10)
6+ Ret	Medium (10/7)	High (15/10)	High (15/10)

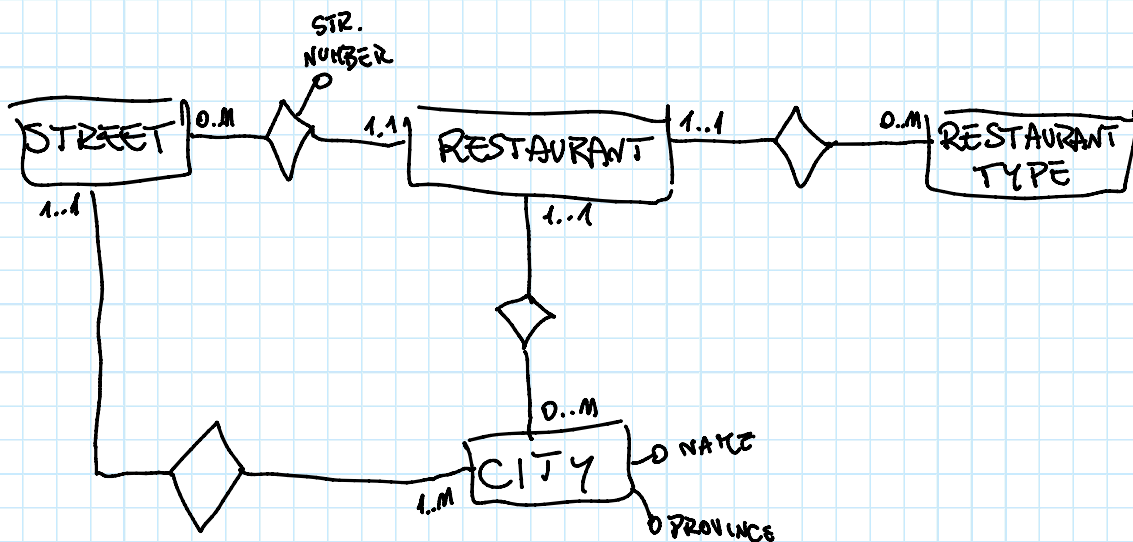
EI

FTR / DET	1-4 DET	5-15 DET	16+ DET
0 - 1 FTR	Low (3)	Low (3)	Medium (4)
2 FTR	Low (3)	Medium (4)	High (6)
3+ FTR	Medium (4)	High (6)	High (6)

EO/EQ

FTR / DET	1-5 DET	6-19 DET	20+ DET
0 - 1 FTR	Low (4/3)	Low (4/3)	Medium (5/4)
2-3 FTR	Low (4/3)	Medium (5/4)	High (7/6)
4+ FTR	Medium (5/4)	High (7/6)	High (7/6)

Simple ER Schema that justifies following choices:



Resulting tables:

Restaurant (Code, Chain, VAT, name, Op-date, Str-num, Street[^], Type[^], City[^])

Street (Code, Name, Coordinates, City[^])

City (Name, Province)

City (Name, Province)

Type (Cook, Description)

ILF/ELF:

• ILF Restaurant	1 RET	9 DET	→ 7
• ILF City	1 RET	2 DET	→ 7
• ILF Type	1 RET	2 DET	→ 7
• ELF Street	1 RET	4 DET	→ 5
			<u>26</u>

EJ:

• INS Restaurant	4 FTR	9 DET	→ 6
• UPD Restaurant	4 FTR	8 DET	→ 6
• DEL Restaurant	1 FTR	1 DET	→ 3
• INS Type	1 FTR	2 DET	→ 3
• UPD Type	1 FTR	1 DET	→ 3
• DEL Type	1 FTR	1 DET	→ 3
			<u>24</u>

EO:

• DISPLAY	3 FTR	13 DET	→ <u>5</u>
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EQ:

• DISPLAY'	3 FTR	12 DET	→ <u>4</u>
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⇒ Function Points: $26 + 24 + 5 + 4 = 59$.