Basics of Software Engineering List 3

1. Create a decision table (limited format) which, on the basis of gender and marital status will define a person title, e.g. Mrs., Mr., Miss

Limited

Condition	Rule 1	Rule 2	Rule 3	Rule 4
Male	X	X		
Female			X	X
Not married	X		X	
Married		X		X
Action				
Mr.	X	X		
Mrs.				X
Miss			X	

Extended

Condition	1	2	3	4
Gender	Male	Male	Female	Female
Marital status	Unmarried	Married	Unmarried	Married
Person title	Mr.	Mr.	Miss	Mrs.

2. Translate below given decision tree into a decision table (prepare two versions: limited and extended)

Conditions	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6	Rule 7	Rule 8
Applicant < $30K	X	X						
Applicant $30-70K			X	X	X	X		
Applicant >-70K							X	X
Criminal Record	X							X
Years in Job < 1			X					
Years in Job 1-5				X	X			
Years in Job >5						X		
Makes Credit Payments				X				
Actions								
Loan	X			X		X	X	

Extended

Conditions	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6	Rule 7	Rule 8
Applicant	<$30K	<$30K	<$30-70K	<$30-70K	<$30-70K	<$30-70K	>$70K	>$70K
Criminal Record	Yes	No	-	-	-	-	Yes	No
Years in Job	-	-	<1 year	1-5 years	1-5 years	>5	-	-
Makes Credit Payments	-	-	-	Yes	No	-	-	-
LOAN	**Yes**	**No**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**

4. Draw a use-case diagram for a Library system

Library

Person

Librariian

Insertion of new books

Deletion of destroyed books

Update library catalog

Register

Becomes a User if successfully registered

Search Library Catalog

Authenticate

Login & Password

Fingerprint

Reserve a book

Login

Guest

User