

PART (A) FOR EACH DIAGRAM, ONE MARK FOR CORRECT IDENTIFICATION OF AN ATTRIBUTE OF THE DIAGRAM, ONE MARK FOR A STATEMENT ABOUT THE DESIGN PROCESS RELATED TO THAT ATTRIBUTE. [TOTAL 4]

PART (B) ONE MARK FOR A CORRECT RELATION BETWEEN EACH PROCESS/DIAGRAM PAIR [TOTAL 4]

PART (C) ONE MARK FOR DESCRIBING SOME DATABASE ASPECT OF THE CAPSA PROJECT, ONE MARK FOR A DESCRIPTION OF AN ATTRIBUTE OF A MANAGEMENT MODEL (ANY PLAUSIBLE CONNECTION BETWEEN THEM IS OK) [TOTAL 2]

PART (D) THE SEQUENCE OF OPERATIONS IN COLLABORATION DIAGRAM EXPRESSES THE SCENARIO OF A USE CASE - 1 MARK FOR DESCRIBING EACH SIDE. (2)  
THE USE CASE DIAGRAM SHOULD INCLUDE THE RESEARCHER<sup>(1)</sup> AS APPROVER<sup>(1)</sup> AND TWO USE CASES<sup>(2)</sup>, THE COLLABORATION DIAGRAM SHOULD INCLUDE REQUEST OBJECT<sup>(1)</sup> WITH LINK TO PRODUCT OR CATALOGUE<sup>(1)</sup> AND MESSAGES RELATING TO REQUEST<sup>(1)</sup>, WITH AN EXTRA MARK<sup>(1)</sup> FOR MORE DETAIL (APPROVAL, PRODUCT & CATALOGUE ETC.) SUBTRACT A MARK FOR EACH SIGNIFICANT DEVIATION FROM CORRECT DIAGRAM SYNTAX [TOTAL 10]

PART (A) A USE CASE DIAGRAM IS USED TO EXPRESS THE STRUCTURE OF USER INTERACTIONS WITH THE SYSTEM. A COLLABORATION DIAGRAM REPRESENTS THE DYNAMIC RELATIONSHIPS BETWEEN OBJECT INSTANCES, IN TERMS OF MESSAGES PASSING BETWEEN THEM.

plow!  
AFB

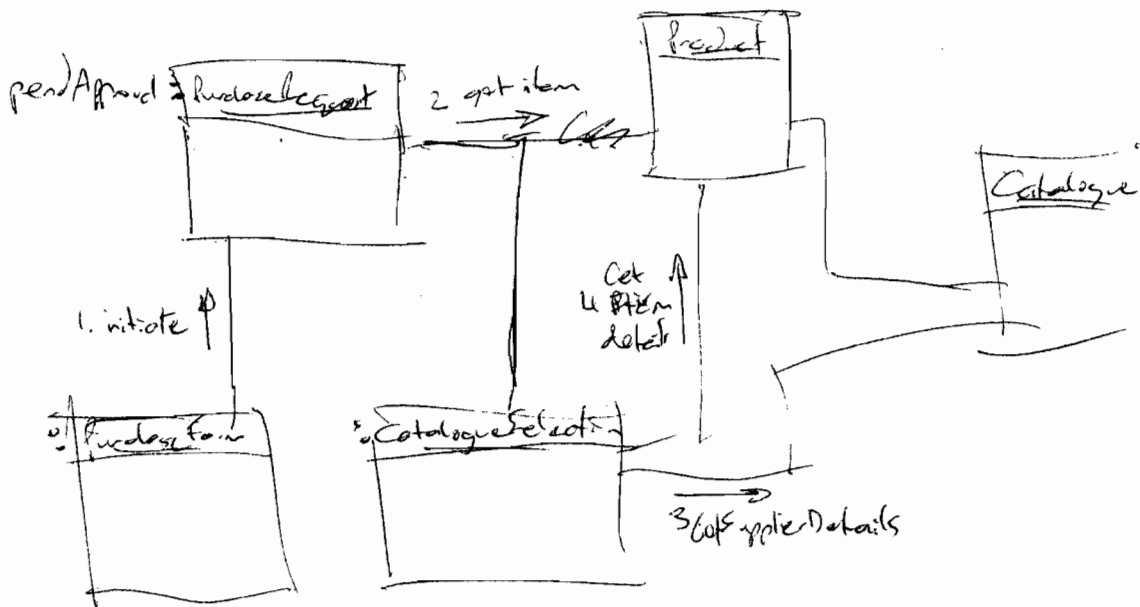
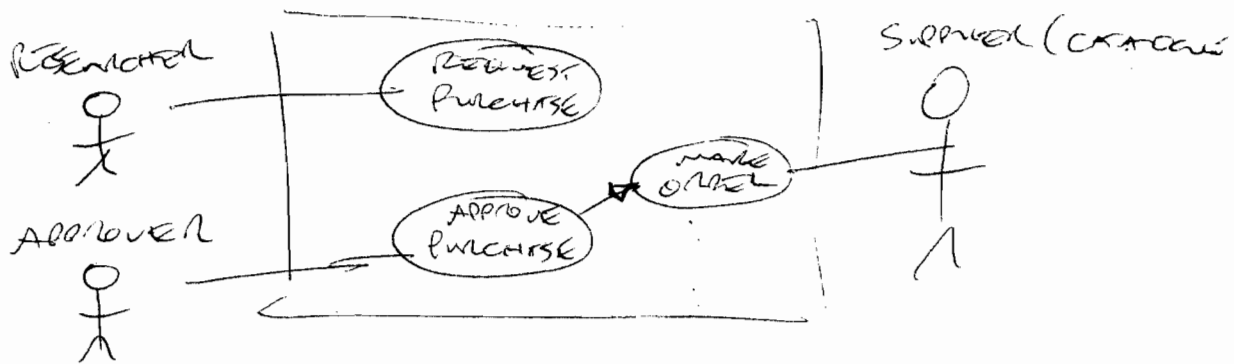
(B) WATERFALL MODEL: USE CASE DIAGRAM IS IMPORTANT BECAUSE OF NEED TO LET USERS TO FEEL EARLY OF FLEXIBILITY, SO THIS IS THE ONLY POINT AT WHICH THEY REALLY HAVE AN INPUT TO DESIGN. COLLABORATION DIAGRAMS WOULD BE USED PARTLY TO VERIFY CLASS RELATIONSHIPS, AND PARTLY AS A DETAILED SPECIFICATION OF INTERACTIONS (ALTHOUGH SEQUENCE DIAGRAMS MIGHT BE USED FOR THIS INSTEAD).

USER CENTRED DESIGN: AS THE DESIGN IS LIKELY TO EVOLVE AS THE RESULT OF USER FEEDBACK TO PROTOTYPES, IT WILL BE NECESSARY TO MAINTAIN RECORDS FOR TRACEABILITY BETWEEN THE SCENARIO NARRATIVES & USE CASES (WHICH ARE LIKELY TO CHANGE) AND THE CLASSES THAT IMPLEMENT THEM, AS RECORDED IN COLLABORATION DIAGRAMS. THEY COULD ALSO BE USED TO ANTICIPATE THE EFFECTS OF CHANGES TO THE OBJECT MODEL.

(C) CAPSA WAS CLOSEST TO A WATERFALL MODEL, BECAUSE THERE WAS NO MECHANISM FOR USER FEEDBACK TO THE DESIGN, ALTHOUGH IT IS NOT CLEAR WHETHER THERE WAS ANY CLEAR SIGN-OFF. THERE WAS CERTAINLY NO TESTING PHASE IN THE CONVENTIONAL SENSE, AS CAPSA WENT LIVE WITHOUT TESTING.

(D) THE NARRATIVE PRESENT IN THE USE CASE DESCRIPTION CAN BE INTERPRETED ACCORDING TO THE SEQUENCE OF MESSAGES IT INITIATES AS SHOWN IN THE COLLABORATION (PRO)

# DIAGRAM



THE SERIES OF MESSAGES (1, 2, 3, 4) OF THIS DIAGRAM WILL BE DERIVED FROM THE NARRATIVE THAT WAS ASSOCIATED WITH THE USE CASE "REQUEST PURCHASE". THE PURCHASE REQUEST OBJECT WILL BE PERSISTENT, WAITING FOR APPROVAL, WHILE THE FORM AND SELECTION OBJECTS ARE TRANSIENT

(18 minutes 30)