PSEUDO CODE FOR CUSTOM KITCHENS APPLICACTION

**Task 2: Pseudocode and Object Definition Sheet – 15 Marks**

• Write pseudocode to design the event procedure for validating the width of the kitchen. Width is compulsory (it cannot be null) and must be between 120 centimetres and 600 centimetres inclusive.

START

length IS EQUAL TO INPUT (“Length”)

width IS EQUAL TO INPUT (“Width”)

maximumBudget IS EQUAL TO INPUT (“Maximum budget”)

IF length IS EQUAL TO “” THEN

OUTPUT (“Length cannot be null! Minimum value of 150 will be set!”)

length IS EQUAL TO 150

END IF

IF width IS EQUAL TO “” THEN

OUTPUT (“Width cannot be null! Minimum value of 120 will be set!”)

width IS EQUAL TO 120

END IF

IF length IS LESS THAN 150 THEN

OUTPUT (“The length entered can only be a minimum of 150”)

length IS EQUAL TO 150

ELSE IF length IS GREATER THAN 600 THEN

OUTPUT (“The length entered can only be a maximum of 600”)

length IS EQUAL TO 600

END IF

IF width IS LESS THAN 120 THEN

OUTPUT (“The width entered can only be a minimum of 120”)

width IS EQUAL TO 150

ELSE IF width IS GREATER THAN 600 THEN

OUTPUT (“The width entered can only be a maximum of 600”)

width IS EQUAL TO 600

END IF

IF maximumBudget IS LESS THAN 1000 THEN

OUTPUT (“The maximum budget entered can only be a minimum of 1000”)

maximumBudget IS EQUAL TO 1000

ELSE IF maximumBudget IS GREATER THAN 25000 THEN

OUTPUT (“The maximum budget entered can only be a maximum of 25000”)

maximumBudget IS EQUAL TO 25000

END IF

OUTPUT (“Inputs are valid!”)

STOP

• Write pseudocode to design the event procedure for selecting and displaying the suitable kitchen styles to be displayed, based on the customer’s kitchen dimensions (length and width) and maximum budget.

START

length IS EQUAL TO INPUT (“Length”)

width IS EQUAL TO INPUT (“Width”)

maximumBudget IS EQUAL TO INPUT (“Maximum budget”)

IF length GREATER THAN AND EQUAL TO 150 AND width GREATER THAN AND EQUAL TO 60 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 1000 THEN

OUTPUT ("Small straight kitchen with Laminate countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 1500 THEN

OUTPUT ("Small straight kitchen with Wood block countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 2200 THEN

OUTPUT ("Small straight kitchen with Granite countertop")

END IF

END IF

IF length GREATER THAN AND EQUAL TO 250 AND width GREATER THAN AND EQUAL TO 180 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 3500 THEN

OUTPUT ("Small L-shaped kitchen with Laminate countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 4500 THEN

OUTPUT ("Small L-shaped kitchen with Wood block countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 5750 THEN

OUTPUT ("Small L-shaped kitchen with Granite countertop")

END IF

END IF

IF length GREATER THAN AND EQUAL TO 350 AND width GREATER THAN AND EQUAL TO 60 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 5250 THEN

OUTPUT ("Medium straight kitchen with Laminate countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 6200 THEN

OUTPUT ("Medium straight kitchen with Wood block countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 8000 THEN

OUTPUT ("Medium straight kitchen with Granite contertop")

END IF

END IF

IF length GREATER THAN AND EQUAL TO 350 AND width GREATER THAN AND EQUAL TO 240 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 6500 THEN

OUTPUT ("Medium L-shaped kitchen with Laminate countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 7750 THEN

OUTPUT ("Medium L-shaped kitchen with Wood block countertop")

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 9500 THEN

OUTPUT ("Medium L-shaped kitchen with Granite countertop")

END IF

END IF

IF length GREATER THAN AND EQUAL TO 450 AND width GREATER THAN AND EQUAL TO 350 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 8250 THEN

OUTPUT (“Large L-shaped kitchen with Laminate countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 9500 THEN

OUTPUT (“Large L-shaped kitchen with Wood block countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 12500 THEN

OUTPUT (“Large L-shaped kitchen with Granite countertop”)

END IF

END IF

IF length GREATER THAN AND EQUAL TO 500 AND width GREATER THAN AND EQUAL TO 60 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 6750 THEN

OUTPUT (“Large straight kitchen with Laminate countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 8500 THEN

OUTPUT (“Large straight kitchen with Wood block countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 11000 THEN

OUTPUT (“Large straight kitchen with Granite countertop”)

END IF

END IF

IF length GREATER THAN AND EQUAL TO 450 AND width GREATER THAN AND EQUAL TO 450 THEN

IF maximumBudget GREATER THAN AND EQUAL TO 12500 THEN

OUTPUT (“Large island kitchen with Laminate countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 15000 THEN

OUTPUT (“Large island kitchen with Wood block countertop”)

END IF

IF maximumBudget GREATER THAN AND EQUAL TO 23000 THEN

OUTPUT (“Large island kitchen with Granite countertop”)

END IF

END IF

STOP

• Produce an Object Definition Sheet for the full program (see object definition sheet).

**Object Definition Sheet**

Non-default properties at design time Event procedures that have to be written

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| --- | --- | --- | --- | --- |
| **No.** | **Type** | **Property** | **Value** | **Event procedure** |
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