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SCHOOL OF COMPUTING, UUM COLLEGE OF ARTS AND SCIENCES

SKIP2113 DESIGN AND ANALYSIS OF ALGORITHM A232

ASSIGNMENT 1

INSTRUCTIONS:

1. Each group needs to design an **ALGORITHM FOR BOOKING A VACATION**
2. **Objective:** The objective of this assignment is to introduce students to algorithmic thinking and focuses on conceptual understanding on how to create a step-by-step process for planning and booking a vacation. This task involves several decision points and dependencies, making it an ideal scenario to apply basic algorithmic concepts.

3. Details:

a. **Task description:** Each group must design an algorithm to plan and book a vacation, covering destination selection, transportation, lodging and activities. The goal is to create a logical, efficient plan that considers various inputs and constraints.

b. Requirements specification:

i. Define a specific budget
ii. Set a duration for the vacation
iii. Include at least two different types of transportation
iv. Plan lodging and daily activities

c. Algorithm development:

i. Step 1 Set Parameters: Start by defining the budget, number of travelers, preferred dates and must-do activities.
ii. Step 2 Research Destinations: Based on the parameters, list possible destinations and select one based on criteria such as cost, weather and attractions.
iii. Step 3 Plan Transportation: Determine the best way to reach the destination and how to move around.
iv. Step 4 Arrange Accommodations: Choose where to stay based on price, location and amenities.
v. Step 5 Schedule Activities: Decide on activities for each day, considering travel time.

4. **Documenting the Algorithm:**
    a. Create a detailed list or flowchart that clearly shows the sequence of steps and decision points in the vacation planning process.
    b. Explain the rationale behind each decision, such as why a particular destination or lodging was chosen.

5. Submit the algorithm in a clearly structured format, like a detailed plan or a flowchart in MS Word using the link provided in OL (Link will be created later).
6. Include a narrative or explanatory text to discuss the choices made during the planning process.
7. The deadline for the **ASSIGNMENT 1** submission is in **Week 7** (12 May 2024 - 16 May 2024)

(30 Marks)