1. Write a Python program to identify if a course is required or elective. Refer ([https://cob.unt.edu/ms-buan (Links to an external site.)](https://cob.unt.edu/ms-buan) ) for a list of required courses in MS BUAN. The program will ask for a course number and print if it is required or an elective within the MS BUAN coursework. The program should print “course not listed for MS BUAN” if it is not listed on the above link.

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| **Input** | **Output** |
| DSCI5210 | Required course |
| BCIS5110 | Elective course |
| ACCT5110 | Course not listed for MS BUAN |

1. Write a Python program to compute total price of goods. First, the program will ask user for subtotal (total of all goods and services). Second, the program will ask for coupon(s). For the following coupons (case-sensitive), the user will receive 5% off the subtotal: Spring2022, UNT2022, ITDS2022. Only 1 coupon can be applied. Compute a 10% tax on original. Print total cost. Also, print how much the user saved by using the coupon.

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| **Input 1** | **Input 2** | **Output** | **Notes** |
| 100 | UNT2021 | $110 |  |
| 100 | UNT2022 | $105 | 10% tax on subtotal = $10  5% discount off subtotal = $5 |
| 0 | Spring 2022 | 0 |  |

1. Write a Python program to help Disney with tickets. For individuals 10 years or older, price is $149/day/park. For individuals 3-9 years, the price is $135/day/park. There is a 10% discount for Florida residents on subtotal of tickets. First, assume that there are 5 members in the group. Second, the program will ask age of each group member. Third, the program will ask if the user is a Florida resident. This is a Yes or No question. If the party is Florida residents, discount applies to all. Compute subtotal, 10% tax, Florida discount, and total to be paid.

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| **Input 1 (ages)** | **FL resident?** | **Output** |
| 2; 5; 22; 25; 0 | Y | Subtotal: $433  Tax: $43.3  FL discount: $43.3  Total: $433 |
| 3; 5; 22; 25; 0 | Y | Subtotal: $568  Tax: $56.8  FL discount: $56.8  Total: $568 |
| 3; 5; 22; 25; 0 | N | Subtotal: $568  Tax: $56.8  FL discount: $0  Total: $624.8 |

1. Write a Python program to compute cashback for a user. The program will ask the user to input her total expenses in each of the following categories: dining, travel, groceries, and leisure. Using following cashback rates, compute total cashback for the user: 4%, 3%, 2%, and 1%.

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| --- | --- | --- | --- | --- |
| **Input 1 (Dining)** | **Input 2 (Travel)** | **Input 3 (Groceries)** | **Input 4 (Leisure)** | **Output** |
| 100 | 100 | 100 | 100 | $10 |
| 20 | 100 | 100 | 100 | $6.8 |
| 0 | 100 | 50 | 100 | $5 |

1. Write a Python program to compute monthly charges for electricity usage. Assume the following tiered pricing: 10 cents/kWh for the first 500kWh, 14 cents/kWh for the second 500kWh, and 20 cents/kWh for the rest. Compute subtotal, 10% tax, and final total.

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| **Input 1 (usage in kWh)** | **Output** | **Notes** |
| 100 | $11 |  |
| 1000 | $132 | Subtotal: $120  10% tax on subtotal = $12 |
| 1800 | $308 | Subtotal: $280  10% tax on subtotal = $28 |