```
class SetADT:
    def __init__(self):
        self.elements = []

    def add(self, element):
        if not self.contains(element):
            self.elements.append(element)

    def remove(self, element):
        if self.contains(element):
            self.elements.remove(element)
        else:
            print(f"Element {element} not found in the set!")

    def contains(self, element):
        return element in self.elements

    def size(self):
        return len(self.elements)

    def iterator(self):
        return iter(self.elements)

    def intersection(self, other_set):
        return SetADT.from_list([element for element in self.elements if other_set.contains(element)])

    def union(self, other_set):
        new_set = SetADT()
        for element in self.elements:
            new_set.add(element)
        for element in other_set.elements:
            new_set.add(element)
        return new_set

    def difference(self, other_set):
        return SetADT.from_list([element for element in self.elements if not 
other_set.contains(element)])


    def subset(self, other_set):
        return all(self.contains(element) for element in self.elements)

    @staticmethod
    def from_list(elements):
        new_set = SetADT()
        for element in elements:
            new_set.add(element)
        return new_set

def menu():
    set1 = SetADT()
    set2 = SetADT()
```

```
while True:
    print("\n--- Menu ---")
    print("1. Add element to set1")
    print("2. Add element to set2")
    print("3. Remove element from set1")
    print("4. Remove element from set2")
    print("5. Check if element exists in set1")
    print("6. Check if element exists in set2")
    print("7. Perform union of set1 and set2")
    print("8. Perform intersection of set1 and set2")
    print("9. Perform difference (set1 - set2)")
    print("10. Check if set1 is a subset of set2")
    print("11. Display elements of set1")
    print("12. Display elements of set2")
    print("13. Exit")

    choice = input("Enter your choice: ")

    if choice == '1':
        element = int(input("Enter element to add to set1: "))
        set1.add(element)
    elif choice == '2':
        element = int(input("Enter element to add to set2: "))
        set2.add(element)
    elif choice == '3':
        element = int(input("Enter element to remove from set1: "))
        set1.remove(element)
    elif choice == '4':
        element = int(input("Enter element to remove from set2: "))
        set2.remove(element)
    elif choice == '5':
        element = int(input("Enter element to check in set1: "))
        print("Element exists in set1?" , set1.contains(element))
    elif choice == '6':
        element = int(input("Enter element to check in set2: "))
        print("Element exists in set2?", set2.contains(element))
    elif choice == '7':
        union_set = set1.union(set2)
        print("Union of set1 and set2:", list(union_set.iterator()))
    elif choice == '8':
        intersection_set = set1.intersection(set2)
        print("Intersection of set1 and set2:", list(intersection_set.iterator()))
    elif choice == '9':
        difference_set = set1.difference(set2)
        print("Difference (set1 - set2):", list(difference_set.iterator()))
    elif choice == '10':
        print("Is set1 a subset of set2?", set1.subset(set2))
    elif choice == '11':
        print("Elements in set1:", list(set1.iterator()))
    elif choice == '12':
        print("Elements in set2:", list(set2.iterator()))
        elif choice == '13':
            print("Exiting...")
            break
        else:
            print("Invalid choice! Please try again.")

menu( )
```