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| **Test Case No.** | **TP-001** |
| **Title** | **Create a class object with attributes** |
| **Description** | **Create a class object with public attributes** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **class Employee**  **+ date\_of\_join : date**  **+ eng\_name : string**  **+ chi\_name : string** |
| **Expected Result** | **A UML\_Class object named “Employee” is created with the following attributes:**   |  |  |  | | --- | --- | --- | | **public** | **date\_of\_join** | **date** | | **public** | **eng\_name** | **string** | | **public** | **chi\_name** | **string** | |

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| **Test Case No.** | **TP-002** |
| **Title** | **Create a class object with attributes of different modifiers** |
| **Description** | **Create a class object with private, protected, public and inner attributes** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **class Employee**  **- date\_of\_join : date**  **+ eng\_name : string**  **+ chi\_name : string**  **# has\_dependent: bool**  **~ hkid\_no: string** |
| **Expected Result** | **A UML\_Class object named “Employee” is created with the following attributes:**   |  |  |  | | --- | --- | --- | | **private** | **date\_of\_join** | **date** | | **public** | **eng\_name** | **string** | | **public** | **chi\_name** | **string** | | **protected** | **has\_dependent** | **boolean** | | **package** | **hkid\_no** | **String** | |

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| **Test Case No.** | **TP-003** |
| **Title** | **Create a sub-class object** |
| **Description** | **Create a class object which extends another class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **class Employee**  **- date\_of\_join : date**  **- eng\_name : string**  **- chi\_name : string**  **- has\_dependent: bool**  **- hkid\_no: string**  **Class Worker >> Employee** |
| **Expected Result** | **(1) A UML\_Class object named “Employee” is created with the following attributes:**   |  |  |  | | --- | --- | --- | | **private** | **date\_of\_join** | **date** | | **private** | **eng\_name** | **string** | | **private** | **chi\_name** | **string** | | **private** | **has\_dependent** | **boolean** | | **private** | **hkid\_no** | **String** |   **(2) A UML\_Class object named “Worker” is created without any attributes. The class has a parent named “Employee”.** |

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| **Test Case No.** | **TP-004** |
| **Title** | **Create a sub-class object** |
| **Description** | **Create a class object which extends another class which does not exist** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **Class Worker >> Employee** |
| **Expected Result** | **A UML\_Class object named “Employee” is created without any attributes or methods. NULL value is stored in its parent.** |

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| **Test Case No.** | **TP-005** |
| **Title** | **Create a class object with methods** |
| **Description** | **Create a class object with methods** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **class Employee**  **- date\_of\_join : date**  **- eng\_name : string**  **- chi\_name : string**  **- salary : double**  **- hkid\_no: string**  **+ increaseSalary(double percentage): void**  **+ getEmployeeFullName(): string** |
| **Expected Result** | **A UML\_Class object named “Employee” is created with the following attributes and methods:**   |  |  |  | | --- | --- | --- | | **private** | **date\_of\_join** | **date** | | **private** | **eng\_name** | **string** | | **private** | **chi\_name** | **string** | | **private** | **salary** | **double** | | **private** | **hkid\_no** | **String** |  |  |  |  | | --- | --- | --- | | **public** | **increaseSalary() parameters:**  **percentage (double)** | **void** | | **public** | **getEmployeeFullName()** | **String** | | **private** | **hasWorkingVisa()** | **boolean** | |

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| **Test Case No.** | **TP-006** |
| **Title** | **Create an interface object with methods** |
| **Description** | **Create an interface object with methods** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **interface IExpatriate**  **+ applyWorkingVisa (date expirydate): boolean**  **+ claimExpense(date claim\_date, double claim\_amount): boolean** |
| **Expected Result** | **An UML\_Interface object named “IExpatriate” is created with the following methods:**   |  |  |  | | --- | --- | --- | | **public** | **applyWorkingVisa() parameters:**  **expirydate (date)** | **boolean** | | **public** | **claimExpense ()**  **parameters:**  **claim\_date (date)**  **claim\_amoun (double)** | **boolean** | |

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| **Test Case No.** | **TP-007** |
| **Title** | **Create an interface object with methods** |
| **Description** | **Create an interface object with methods** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **interface IExpatriate**  **+ applyWorkingVisa (date expirydate): boolean**  **+ claimExpense(date claim\_date, double claim\_amount): boolean**  **class Employee || IExpatriate**  **- date\_of\_join : date**  **- eng\_name : string**  **- chi\_name : string**  **- salary : double**  **- hkid\_no: string**  **+ increaseSalary(double percentage): void**  **+ getEmployeeFullName(): string** |
| **Expected Result** | **A UML\_Class object named “Employee” is created with the following attributes and methods:**   |  |  |  | | --- | --- | --- | | **private** | **date\_of\_join** | **date** | | **private** | **eng\_name** | **string** | | **private** | **chi\_name** | **string** | | **private** | **salary** | **double** | | **private** | **hkid\_no** | **String** |  |  |  |  | | --- | --- | --- | | **public** | **increaseSalary() parameters:**  **percentage (double)** | **void** | | **public** | **getEmployeeFullName()** | **String** |   **A UML\_Interface object named “IExpatriate” is created with the following methods:**   |  |  |  | | --- | --- | --- | | **public** | **applyWorkingVisa() parameters:**  **expirydate (date)** | **boolean** | | **public** | **claimExpense ()**  **parameters:**  **claim\_date (date)**  **claim\_amoun (double)** | **boolean** |   **The UML\_Class object Employee implements the UML\_Interface object IExpatriate.** |

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| **Test Case No.** | **TP-008** |
| **Title** | **Create an interface object with methods** |
| **Description** | **Create an interface object with methods** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area:**  **interface IExpatriate**  **+ applyWorkingVisa (date expirydate): boolean**  **+ claimExpense(date claim\_date, double claim\_amount): boolean**  **interface ITravelBenefit**  **+ assignDriver (string driver\_name): void**  **+ claimTravelExpense(date claim\_date, double claim\_amount): boolean**  **class Employee || IExpatriate || ITravelBenefit**  **- date\_of\_join : date**  **- eng\_name : string**  **- chi\_name : string**  **- salary : double**  **- hkid\_no: string**  **+ increaseSalary(double percentage): void**  **+ getEmployeeFullName(): string** |
| **Expected Result** | **A UML\_Class object named “Employee” is created with the following attributes and methods:**   |  |  |  | | --- | --- | --- | | **private** | **date\_of\_join** | **date** | | **private** | **eng\_name** | **string** | | **private** | **chi\_name** | **string** | | **private** | **salary** | **double** | | **private** | **hkid\_no** | **String** |  |  |  |  | | --- | --- | --- | | **public** | **increaseSalary() parameters:**  **percentage (double)** | **void** | | **public** | **getEmployeeFullName()** | **String** |   **A UML\_Interface object named “IExpatriate” is created with the following methods:**   |  |  |  | | --- | --- | --- | | **public** | **applyWorkingVisa() parameters:**  **expirydate (date)** | **boolean** | | **public** | **claimExpense ()**  **parameters:**  **claim\_date (date)**  **claim\_amount (double)** | **boolean** |   **A UML\_Interface object named “ITravelBenefit” is created with the following methods:**   |  |  |  | | --- | --- | --- | | **public** | **assignDriver() parameters:**  **driver\_name (string)** | **void** | | **public** | **claimTravelExpense ()**  **parameters:**  **claim\_date (date)**  **claim\_amount (double)** | **boolean** |   **The UML\_Class object Employee implements the UML\_Interface objects IExpatriate and ITravelBenefit.** |

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| **Test Case No.** | **TP-009** |
| **Title** | **Validate Interface Association Line (01)** |
| **Description** | **Test normal input to validate Interface Association Line** |
| **Precondition** | **Input normal text into text area** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate >> ILicenseTest** |
| **Expected Result** | **Return True result** |

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| **Test Case No.** | **TP-010** |
| **Title** | **Validate Interface Association Line (02)** |
| **Description** | **Test input only have one > which separated by a name in between** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate > ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-011** |
| **Title** | **Validate Interface Association Line (03)** |
| **Description** | **Test no “>” with the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-012** |
| **Title** | **Validate Interface Association Line (04)** |
| **Description** | **Test input more than two “>” in the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate >>> ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-013** |
| **Title** | **Validate Interface Association Line (05)** |
| **Description** | **Test input “>>” at the start of the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **>> interface IExpatriate ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-014** |
| **Title** | **Validate Interface Association Line (06)** |
| **Description** | **Test input “>>” at the end of the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate ILicenseTest >>** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-015** |
| **Title** | **Validate Class Association Line (01)** |
| **Description** | **Test normal input to validate Class Association Line** |
| **Precondition** | **Input normal text into text area** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **class Employee || IExpatriate** |
| **Expected Result** | **Return True result** |

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| **Test Case No.** | **TP-016** |
| **Title** | **Validate Class Association Line (02)** |
| **Description** | **Test input only have one > which separated by a name in between** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate > ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-017** |
| **Title** | **Validate Class Association Line (03)** |
| **Description** | **Test no “>” with the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-018** |
| **Title** | **Validate Class Association Line (04)** |
| **Description** | **Test input more than two “>” in the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate >>> ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-019** |
| **Title** | **Validate Class Association Line (05)** |
| **Description** | **Test input “>>” at the start of the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **>> interface IExpatriate ILicenseTest** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-020** |
| **Title** | **Validate Class Association Line (06)** |
| **Description** | **Test input “>>” at the end of the string** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **interface IExpatriate ILicenseTest >>** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-021** |
| **Title** | **Validate Class Detail Line (01)** |
| **Description** | **Test input attribute (missing “:” and return type) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+attr1** |
| **Expected Result** | **Return False result and prompt error message to user** |
| **Test Case No.** | **TP-022** |
| **Title** | **Validate Class Detail Line (02)** |
| **Description** | **Test input attribute (missing return type) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+attr1:** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-023** |
| **Title** | **Validate Class Detail Line (03)** |
| **Description** | **Test input attribute (missing “(”, “)”, “:” and return type) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+method1** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-024** |
| **Title** | **Validate Class Detail Line (04)** |
| **Description** | **Test input attribute (invalid number of “)”) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+method1())** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-025** |
| **Title** | **Validate Class Detail Line (05)** |
| **Description** | **Test input attribute (missing return type) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+method1():** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-026** |
| **Title** | **Validate Class Detail Line (06)** |
| **Description** | **Test input attribute (invalid parameter definition) for a class** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Class A**  **+method1(int):void** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-027** |
| **Title** | **Validate Interface Detail Line (07)** |
| **Description** | **Test input attribute (missing “(”, “)”, “:” and return type) for an interface** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Interface A**  **+method1** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-028** |
| **Title** | **Validate Interface Detail Line (04)** |
| **Description** | **Test input attribute (invalid number of “)”) for an interface** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Interface A**  **+method1())** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-029** |
| **Title** | **Validate Interface Detail Line (05)** |
| **Description** | **Test input attribute (missing return type) for an interface** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Interface A**  **+method1():** |
| **Expected Result** | **Return False result and prompt error message to user** |

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| **Test Case No.** | **TP-030** |
| **Title** | **Validate Interface Detail Line (06)** |
| **Description** | **Test input attribute (invalid parameter definition) for an interface** |
| **Precondition** | **N/A** |
| **Assumption** | **N/A** |
| **Test Steps** | **Input the following data in the text area**  **Interface A**  **+method1(int):void** |
| **Expected Result** | **Return False result and prompt error message to user** |