# Comp 4603

# Advanced C++

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| Assignment | 6 | Part | 2 |

Student Name: Alisher Shamayev

BCIT ID: A01182685

To implement **three** creational design patterns using C++

Hint: It’s your choice on which three patterns

Submission:

1. Complete this document with pattern names with UML
2. C++ code/files
3. To submit one zip file including all your files

Late submissions will NOT be accepted.

1st design pattern name:

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| --- |
| Singleton |

Description of your example:

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| So in this case we are doing one Playstation 5 class using singleton method so we will provide a single private constructor that will prevent instantiating object directly instead there will be get method will return a static instance of a class. |

UML diagram

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2nd design pattern name:

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| Factory Method |

Description of your example:

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| We will make a CarFactory that will create cars by detecting from which classes are they and we will have CarBrand class and child classes that will be for different brands. |

UML diagram

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| A piece of paper with writing on it  Description automatically generated |

3rd design pattern name:

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| Prototype |

Description of your example:

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| In this example we are making abstract class Console and child classes Playstation and GameBoy which then we will be able to clone them and create new objects without copying all of it member variables. |

UML diagram

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