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| **Unit Code/s & Name/s** | ICTPRG405 Automate processes | | | |
| **Assessment Type** | Portfolio | | | |
| **Assessment Name** | Python programming project | **Assessment Task No.** | | AT1 Part 1 |
| **Assessment Due Date** | Sunday 31st July 2022 | **Date submitted** | | 31/07/22 |

### Step 1: Algorithm

Function to prepare input for Caesar cypher Algorithm

Step 1 - get input from user as a string

Step 2 - replace all full stops (“.”) with a capital X (“X”)

# ensure the full stop is converted to a capital X not a lower-case X

Step 3 - remove all characters that are not alphabet

# this will remove anything that is not defined as an alphabet character.

Step 4 - convert all characters to uppercase(capitals)

# will convert all lower-case to uppercase and not remove uppercase characters that already exist

As a flow chart

Diagram

Description automatically generated

### Step 2: Write Tests for the Function

1. Test Cases
2. In all test cases the output string is converted to uppercase, and spaces are removed so I will not put that into each comment, just the first one.

|  |  |  |
| --- | --- | --- |
| **INPUT STRING** | **OUTPUT STRING** | **COMMENTS** |
| whats doin mate | WHATSDOINMATE | converts to uppercase, removes spaces |
| I lost 300 gambling | ILOSTGAMBLING | digits |
| You lost $300 gambling??? | YOULOSTGAMBLING | digits, symbols $ and ? are removed |
| yes I’m so f#ckin ANgRY | YESIMSOFCKINANGRY | symbols # and ‘ |
| Don’t you DARE tell my wif3\*&(! | DONTYOUDARETELLMYWIF | various symbols, digits |
| OK!!, I won’t, if you pay me $300 | OKIWONTIFYOUPAYME | commas, digits, symbols, apostrophes are removed |
| WhatKINDOF friend ru????? ??? | WHATKINDOFFRIENDRU | symbol ? is removed |
| The kind, that likes to make sureHiS mate,s learn thIer lessons W3ll, so now you lost SIX HUNDRED DOLLARS gambling!!! | THEKINDTHATLIKESTOMAKESUREHISMATE  SLEARNTHIERLESSONSWLLSONOWYOULO STSIXHUNDREDDOLLARSGAMBLING | digits, symbols, commas, are removed.  converted a period “.” to an uppercase X “X”  Also tested through a lot of characters in this sentence |
| Ok, that’s fair, whats your account # | OKTHATSFAIRWHATSYOURACCOUNT | apostrophes, symbols are removed |
| BSB + “123456”, Account # - 654321. don’t gamble again……. XOXO | BSBACCOUNTXDONTGAMBLEAGAINXXOXO | quotes, digits, symbols (+,-,#), apostrophes are removed  conversion of . to X  Also tested multiple repeating spaces/gaps in the sentence |