Prac 04 Design

B, Bukanga

221005009

**Problem Description**

Option A:

Your program must output the following sequence (the number of terms in the sequence is given by the user): 1, 3, 6, 2, 7, 1, 8, 16, 7, 17, 6, 18, 5, 19, 4, 20, 3, 21, 2, 22, 1, 23, 46, 22, 47 (A0469011) Option B:

Your program must calculate the sum of n A046901 numbers (the total numbers are given by the user)

Option C:

Your program must convert a string input by the user into the reverse version of the input string. The program must be able to handle a string that can potentially contain spaces.

Option X:

Exit program

**Input and Output**

Option A

|  |  |
| --- | --- |
| Input |  |
| Terms | Standard input stream |
| Output |  |
| Sequence based on number of terms | Standard output stream |

Option B

|  |  |
| --- | --- |
| Input |  |
| Terms | Standard input stream |
| Output |  |
| Total Based in number of terms | Standard output stream |

Option C

|  |  |
| --- | --- |
| Input |  |
| Word | Standard input stream |
| Output |  |
| Word backwards | Standard output stream |

Option X

|  |  |
| --- | --- |
| Input |  |
| Null |  |
| Output | |
| Exit Application |  |

**Data Format**

|  |  |  |
| --- | --- | --- |
| Identifier | Data type | Description |
| chOption | Char | Select Character A or B for Option |
| IntTerms | Integer | Number of terms of sequence |
| strWord | String | Enter a word to be displayed backwards |
| intSum | Integer | Sum of values of sequence depending on number of terms |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Pseudo Code**

ChOption  User Enter A or B Case A intTerms  Capture input for terms

Display  Sequence

Case B

intTerms  Capture input for terms

Display  Sequence

Display  Sum

Case C

StrWord  Capture String word

Display  String backwards

Case X

Exit program

UML

