

Let me raise one simple string manipulation like bellow.

We use java substring to define one function Concat() like bellow.

```
public String concat(String str1, int leading, String str2, int following)
```

It will take **leading** count of substring from start of the string **str1** and concat with **following** count of substring from end of the string **str2**, the will be one Mongolian word.

Let us check what will happen with both of the “toggle-logic” and “over-ride” logic based encoding.

1. “toggle-logic” based encoding ISSUE HERE !!!

```
concat( “ᠠᠨᠠ”, 3, “ᠠᠨᠠᠨᠠᠨᠠ”, 4) → “ᠠᠨᠠᠨᠠᠨᠠ”
concat( “ᠠᠨᠠᠨᠠᠨᠠ”, 4, “ᠠᠨᠠᠨᠠ”, 2) → “ᠠᠨᠠᠨᠠ” ← we expected here “ᠠᠨᠠᠨᠠ”
concat( “ᠠᠨᠠ”, 4, “ᠠᠨᠠᠨᠠᠨᠠᠨᠠ”, 8) → “ᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠ” ← we expected here “ᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠ”
concat( “ᠠᠨᠠ”, 3, “ᠠᠨᠠᠨᠠ”, 3) → “ᠠᠨᠠᠨᠠ”
concat( “ᠠᠨᠠ”, 3, “ᠠᠨᠠᠨᠠ”, 3) → “ᠠᠨᠠᠨᠠ”
```

```
ᠠᠨᠠ - <U1828_NA><U1820_A><U1837_RA><U1822_I><U1828_NA>
ᠠᠨᠠᠨᠠ - <U1830_SA><U1820_A><U1837_RA><U1820_A><U182D_GA><U1824_U><U182F_LA>
ᠠᠨᠠᠨᠠᠨᠠ - <U1828_NA><U1820_A><U1837_RA> + <U1820_A><U182D_GA><U1824_U><U182F_LA>
ᠠᠨᠠᠨᠠᠨᠠ - <U1830_SA><U1820_A><U1836_YA><U180B?> <U1822_I><U182C_QA><U1820_A><U1828_NA>
ᠠᠨᠠᠨᠠ - <U1820_A><U182D_GA><U1824_U><U1824_U>
ᠠᠨᠠᠨᠠ - <U1830_SA><U1820_A><U1836_YA><U180B?> + <U1824_U><U1824_U>
ᠠᠨᠠᠨᠠ - <U182E_MA><U1820_A><U1836_YA><U180B?><U1822_I><U182D_GA>
ᠠᠨᠠᠨᠠᠨᠠᠨᠠ - <U182C_QA><U1824_U><U1824_U><U1835_JA><U1820_A><U182F_LA><U1820_A><U182C_QA><U1824_U>
ᠠᠨᠠᠨᠠᠨᠠᠨᠠᠨᠠ - <U182E_MA><U1820_A><U1836_YA><U180B?> +
<U1824_U><U1824_U><U1835_JA><U1820_A><U182F_LA><U1820_A><U182C_QA><U1824_U>
ᠠᠨᠠᠨᠠ - <U1833_DA><U1820_A><U182F_LA><U1820_A><U1828_NA>
ᠠᠨᠠᠨᠠᠨᠠ - <U182D_GA><U1822_I><U182F_LA><U182A_BA><U1820_A><U1830_SA>
ᠠᠨᠠᠨᠠᠨᠠ - <U1833_DA><U1820_A><U182F_LA> + <U182A_BA><U1820_A><U1830_SA>
ᠠᠨᠠᠨᠠ - <U1834_CHA><U1820_A><U1837_RA><U1822_I><U182F_LA>
ᠠᠨᠠᠨᠠ - <U1823_O><U1837_RA><U182D_GA><U1822_I><U182F_LA>
ᠠᠨᠠᠨᠠ - <U1833_CHA><U1820_A><U1837_RA> + <U182D_GA><U1822_I><U182F_LA>
```

We will be not able to prepare all of the string manipulation function Mongolian Specific request. How big influence it will be. Please imaging the impact seriously !!!

2. "Over-Ride logic" based encoding exactly SOLVE THE PROBLEM!!!

I have used FVS3 <U180D> to over-ride U1836_YA Medial Default Form.

concat("ᠠᠨᠢ", 3, "ᠠᠨᠢᠨᠠᠨᠢ", 4) → "ᠠᠨᠢᠨᠠᠨᠢ"

concat("ᠠᠨᠢᠨᠠᠨᠢ", 4, "ᠠᠨᠢᠨᠠ", 2) → "ᠠᠨᠢᠨᠠ" ← It is our expected word here "ᠠᠨᠢᠨᠠ"

concat("ᠠᠨᠢᠨᠠ", 4, "ᠠᠨᠢᠨᠠᠨᠢᠨᠠ", 8) → "ᠠᠨᠢᠨᠠᠨᠢᠨᠠ" ← It is our expected word here "ᠠᠨᠢᠨᠠᠨᠢᠨᠠ"

concat("ᠠᠨᠢ", 3, "ᠠᠨᠢᠨᠠ", 3) → "ᠠᠨᠢᠨᠠ"

concat("ᠠᠨᠢᠨᠠ", 3, "ᠠᠨᠢᠨᠠ", 3) → "ᠠᠨᠢᠨᠠ"

ᠠᠨᠢᠨᠠ - <U1828_NA><U1820_A><U1837_RA><U1822_I><U1828_NA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1830_SA><U1820_A><U1837_RA><U1820_A><U182D_GA><U1824_U><U182F_LA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1828_NA><U1820_A><U1837_RA> + <U1820_A><U182D_GA><U1824_U><U182F_LA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1830_SA><U1820_A><U1836_YA><U180D> <U1822_I><U182C_QA><U1820_A><U1828_NA>

ᠠᠨᠢᠨᠠ - <U1820_A><U182D_GA><U1824_U><U1824_U>

ᠠᠨᠢᠨᠠ - <U1830_SA><U1820_A><U1836_YA><U180D> + <U1824_U><U1824_U>

ᠠᠨᠢᠨᠠ - <U182E_MA><U1820_A><U1836_YA><U180D><U1822_I><U182D_GA>

ᠠᠨᠢᠨᠠᠨᠢᠨᠠ - <U182C_QA><U1824_U><U1824_U><U1835_JA><U1820_A><U182F_LA><U1820_A><U182C_QA><U1824_U>

ᠠᠨᠢᠨᠠᠨᠢᠨᠠ - <U182E_MA><U1820_A><U1836_YA><U180D> +

<U1824_U><U1824_U><U1835_JA><U1820_A><U182F_LA><U1820_A><U182C_QA><U1824_U>

ᠠᠨᠢᠨᠠ - <U1833_DA><U1820_A><U182F_LA><U1820_A><U1828_NA>

ᠠᠨᠢᠨᠠᠨᠢ - <U182D_GA><U1822_I><U182F_LA><U182A_BA><U1820_A><U1830_SA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1833_DA><U1820_A><U182F_LA> + <U182A_BA><U1820_A><U1830_SA>

ᠠᠨᠢᠨᠠ - <U1834_CHA><U1820_A><U1837_RA><U1822_I><U182F_LA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1823_O><U1837_RA><U182D_GA><U1822_I><U182F_LA>

ᠠᠨᠢᠨᠠᠨᠢ - <U1833_CHA><U1820_A><U1837_RA> + <U182D_GA><U1822_I><U182F_LA>

Note: because Mongolian Baiti font has not supported this new over-ride logic, I am using default encoding to showing the correct word here. Please refer the Unicode string.