

Our Dictionary (Updated):

Note Class:

- **Constructor(pos=[0], dur="q", rest=false, first=false)**
- User Input: `\note{[n1,n2,...],s,t}`
- Caution: 'first' argument is not to be used by front-end
- Pos: A collection of note positions, ranging from -15 to 15 where 0 is the middle line. An error should be output if integer is outside this range.
- Dur: The note duration. The first char can either be 'w', 'q', or 'h', representing whole, quarter, and half respectively. Any following char may only be an 'h', which cuts the note duration in half. An error should output if any other string combination is input.
- Rest: If the note should be displayed as a rest, this should be set to true.

Marking Class:

- **Constructor(dur="q", type)**
- User Input: `\crescendo{dur}`, `\decrescendo{dur}`, `\text{*string*, dur}`
- Dur: The duration of the marking, has the same syntax as Note dur.
- Type: Values can either be "crescendo", "decrescendo", or any other arbitrary text will be interpreted as plain text.

Sheet Class:

- **Constructor(clefnum=1)**
- User Input: `\clefnum{clefnum}`
- Clefnum: Number of clefs (generally either 1 or 2 for piano, 3 if need dynamics)
 - **render(beams=null)**
 - User Input: `\beam{\note{}}\note{}}`
 - Beams: A 2D array of ints. The first integer in each sub-array of 1 dimension is the clef number (initial position 0), the second integer is which measure of the clef (also indexed at 0), any following integers are which notes in the measure want to be connected. See [dic_test.html](#) for implementation examples.
 - Caution: Users can only connect notes that are shorter than quarter notes.
 - **newMeasure(cleffnum=0,len=300,clef=null, keysig=null,timesig=null)**
 - User Input: `\measure{cleffnum, len, clef, keysig, timesig, \note{}}`,
`\beam{\note{}}\note{}}` - Underlined portion is this method
 - Cleffnum: Which clef new measure is on
 - Len: Option value for how long measure is. Max 1200.
 - Clef: If the user wants to declare a clef. Possible values of 'bass', 'treble', 'alto', 'tenor'

- Keysig: If user wants to declare a key signature, in form 'A', 'Ab', 'A#', 'a', 'ab', 'a#'
- Timesig: If user wants to declare a time signature, in form 'n/m'
- **newNoteSet(cleffnum=0,notes=null,markings=null)**
- User Input: \measure {cleffnum, len, clef, keysig, timesig, \note{},
\beam{\note{}}\note{}}} - Underlined portion is this method
- Cleffnum: Which clef new measure is on
- Notes: A collection of Note objects in an array

Sample User Text Input:

```
\cleffnum{3}
```

```
\measure{cleffnum=1,clef=treble, keysig=D,timesig=4/4,  
\beam{\note{6,qh},\note{5,qh},\note{6,qh},\note{5,qh}},  
\beam{\note{6,qh},\note{3,qh},\note{6,qh},\note{2,qh}}}
```

```
\measure{2,\text{mp}}
```

```
\measure{cleffnum=3,clef=bass, keysig=D,timesig=4/4, \beam{\note{2,qh},\note{6,qh}},  
\note{9}, \beam{\note{0,qh},\note{4,qh}}, \note{8}}
```

This should render the first measure of River Flows in You:

