Dor Rondel
MxM/Clay Adventure Time

Part A:

1. Write a pitch/duration invariant Clay definition called **seq** to play the following sequence of notes, assuming that the note is in its default configuration**.**

   C1 / D1 \ C1 C1 / F1 \ C1 / E1 \ D1

   seq >> PLAY RP PLAY LP 2PLAY 3RP PLAY 3LP PLAY 2RP PLAY LP PLAY

2. Write a pitch/duration invariant Clay definition called **rev** to play the **reverse** sequence of **seq,** assuming that the note is in its default configuration.

   D1 / E1 \ C1 / F1 \ C1 C1 / D1 \ C1

   rev >> RP PLAY RP PLAY 2LP PLAY 3RP PLAY 3LP 2PLAY RP PLAY LP PLAY

3. Write a pitch/duration invariant Clay definition called **inv** to play the **inversion** sequence of **seq,** assuming that the noteis in its default configuration.

   C1 \ B1 / C1 C1 \ G1 / C1 \ A1 / B1

   inv >> PLAY LP PLAY RP 2PLAY 4RP PLAY 4LP PLAY 2LP PLAY RP PLAY

4. Write a pitch/duration invariant Clay definition called **ris** to play the **reverse inversion** sequence of **seq,** assuming that the note is in its default configuration.

   B1 \ A1 / C1 \ G1 / C1 C1 \ B1 / C1

   ris >> LP PLAY LP PLAY 2RP PLAY 4RP PLAY 4LP 2PLAY LP PLAY RP PLAY

5. Write a pitch/duration invariant Clay definition called **break** to simply play the note for a duration of 8 beats. Assuming the default note configuration before playing this command:

   C8

   break >> 3X2 PLAY

Part B:

Base your answers to this set of questions on what you learned by doing the previous set of tasks.

1. Define what is meant by the “reverse” of a sequence of notes.

   If you were to record the order of the notes in which a sequence is played, the “reverse” of that sequence would be those same notes played starting from the last one all the way to the first one.

2. Define what is meant by the “inversion” of a sequence of notes.

   An inversion of a sequence of notes, would be when you’d substitute every pitch raise by a pitch reduction and vice versa for the entire sequence of the notes.

3. Define what is meant by the “reverse inversion” of a sequence of notes.

   Given a sequence of notes, a reverse inversion is achieved when you reverse the order of the notes and display opposite behavior in regards to raising and lowering the pitch in comparison to the original sequence.

Part C:

Compose a 68 note melody called **variations1** which adheres to the following constraints:

1. All notes played must be played indirectly through the use of one of the five commands defined in the previous set of tasks.
2. The **break** command must be used exactly 4 times.
3. The first note heard must be a **C** note and the last note head must be a **C** note.
4. You must make explicit must of the pitch changing commands somewhere in your melody.
5. You must make explicit use of the duration changing commands somewhere in you melody.
6. You may not change the instrument on which the melody is played from the default instrument.

Listen to you melody (**variations1**). Then, save it as a **MIDI** file by interacting with the **-MIDI** button. Move the MIDI file to a nice location for subsequent reference.

VARIATIONS1 >> PLAY SEQ RP RIS S2 2REV 2S2 2BREAK 4S2 INV REV S2 LP 2RIS 2S2 2BREAK

C4 C4 / D4 \ C4 C4 / F4 \ C4 / E4 \ D4 D4 \ C4 / E4 / B4 \ E4 E4 \ D4 / E4 / F2 / G2 \ E2 / A2 \ E2 E2 / F2 \ E2 / F2 / G2 \ E2 / A2 \ E2 E2 / F2 \ E2 E4 E32 E2 \ D2 / E2 E2 / B2 \ E2 \ C2 / D2 / E2 / F2 \ D2 / G2 \ D2 D2 / E2 \ D2 \ B1 \ A1 / C1 / G1 \ C1 C1 \ B1 / C1 \ B1 \ A1 / C1 / G1 \ C1 C1 \ B1 / C1 C2 C16

Part D:

Rewrite each of the first four commands from the first set of tasks so that it plays on its own instrument. Do so in an instrument invariant manner, assuming that the instrument is “piano” prior to running the method.

Define a new command: **variations2 >> variations1.**

Listen to your melody (**variations2**). Then, save it as a **MIDI** file by interacting with the **-MIDI** button. Move the MIDI file to a nice location for subsequent reference.

SEQ >> AGOGO PLAY RP PLAY LP 2PLAY 3RP PLAY 3LP PLAY 2RP PLAY LP PLAY

REV >> TIMPANI RP PLAY RP PLAY 2LP PLAY 3RP PLAY 3LP 2PLAY RP PLAY LP PLAY

INV >> KOTO PLAY LP PLAY RP 2PLAY 4RP PLAY 4LP PLAY 2LP PLAY RP PLAY

RIS >> CHARANG LP PLAY LP PLAY 2RP PLAY 4RP PLAY 4LP 2PLAY LP PLAY RP PLAY

VARIATIONS1 >> PLAY SEQ RP RIS S2 2REV 2S2 2BREAK 4S2 INV REV S2 LP 2RIS 2S2 2BREAK

VARIATIONS2 >> VARIATIONS1