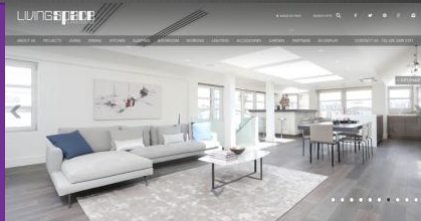# Project 2: Interior Design Website

❂ You will learn how to:
1. Steptime input-adding notes in musical steps
2. Quantising- including Swing Quantise
3. Real-time note input using a MIDI controller
4. Editing notes-velocity, duration, pitch, note position

Scenario: Interior Design Website

You have been approached to create a piece of music for an interior design website. The music will loop in the background while potential clients browse the LivingSpace website. The client has requested easy listening jazz and particularly likes the *Kind of Blue* album by Miles Davis.

You need to do the following:
1. Create a music sequence in a jazz style
2. It has to loop seamlessly-it cannot fade out or have a definite ending(cyclic)
3. It has to be in an audio format suitable for online use
4. Needs to completed in 60 mins
5. Remember, the longer the file the bigger the file size, keep the sequence between 20-40 secs

Step-time note input

- Create a new project, add a new software instrument track, and save as <your name> Interior Design Website

- In the Library, select Bass>Upright Studio Bass

- Create a MIDI region in Bar 1> double click on the region to open Piano Roll.
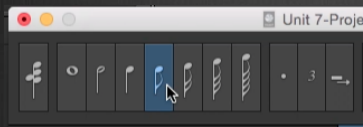
- At the top of the Piano Roll, click the MIDI In button

MIDI In Button

- Choose Window>Show Step Input Keyboard(shortcut: Command-Option-K)

- The floating Step Input keyboard opens.

- On the Step Input keyboard, click the quaver(1/8th note)button. All steps will be a quaver long

- The first beat of the bar is an 1/8th rest(silence), press the spacebar to skip to the next step. The play head moves forward

Note Values

Logic Pro X	Note Name	Note
1/1 note	Semibreve	
1/2 note	Minim	
1/4 note	Crotchet	
1/8 note	Quaver	
1/16 note	Semiquaver	
1/32 note	Demisemiquaver	
1/64 note	Hemidemisemiquaver	

- In the Step Input keyboard, click D2,the note appears in your Piano Roll and the playhead moves to the next step

- Complete bar 1 by clicking A2, B2, C3,D3,E3,C3

- Click D3 in bar 2, the note however, needs to be the length of a semibreve(1/1 note or 1 bar long)

- Click the Sustain Inserted Note button 7 times to lengthen the note for the entire bars

Full Step Input Table

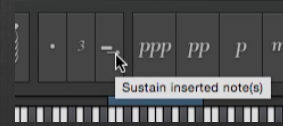| STEPS	Bar 1	Bar 2	Bar 3	Bar 4	Bar 5	Bar 6	Bar 7	Bar 8
1	Spacebar	D3	Spacebar	D3	Spacebar	D3	Spacebar	D3
2	D2	Sustain Inserted Note	D2	A2	D2	Sustain Inserted Note	E3	A2
3	A2	Sustain Inserted Note	A2	Sustain Inserted Note	A2	Sustain Inserted Note	Sustain Inserted Note	Sustain Inserted Note
4	B2	Sustain Inserted Note	B2	Sustain Inserted Note	B2	Sustain Inserted Note	Sustain Inserted Note	Sustain Inserted Note
5	C3	Sustain Inserted Note	C3	Sustain Inserted Note	C3	Sustain Inserted Note	E3	Sustain Inserted Note
6	D3	Sustain Inserted Note	D3	Sustain Inserted Note	D3	Sustain Inserted Note	Sustain Inserted Note	Sustain Inserted Note
7	E3	Sustain Inserted Note	E3	Sustain Inserted Note	E3	Sustain Inserted Note	E3	Sustain Inserted Note
8	C3	Sustain Inserted Note	C3	Sustain Inserted Note	C3	Sustain Inserted Note	Sustain Inserted Note	Sustain Inserted Note

Adding a Drum track

- ❂ In the Piano Roll, click the MIDI In button to turn off step input recording

- ❂ Add a Software Instrument

- ❂ In the Library, select Drum Kit>SoCal drum kit

- ❂ Create a MIDI region and double click on it to open the Piano Roll

- ❂ In the Piano Roll, zoom in using the vertical zoom slider to display drum names

Vertical Zoom

Step Editor

Horizontal Zoom
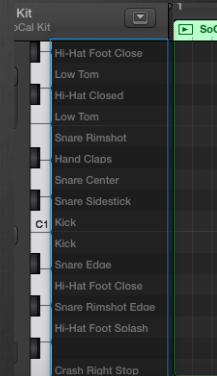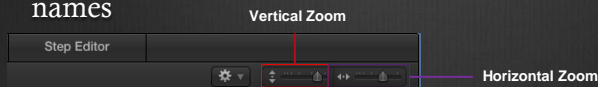
- ❂ Using the Pencil Tool, input the *Hi-Hat Foot Close* and *Ride Out* parts
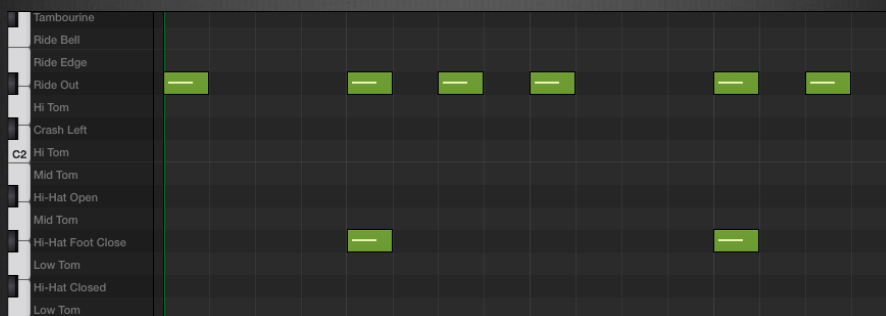
- ❂ Loop the drum part for 8 bars

- ❂ Playback the drum and bass part together

Adding Swing

- At the moment, the sequence is sounding very mechanical and the rhythm is straight, lacking the groove of jazz

- You will need to add some swing to both parts

- In the Piano Roll, select all notes(Command-A)

- Change the Time Quantize setting to 1/8 notes

- Adjust the swing slide to 80

- Ensure you make the change to both drums and bass
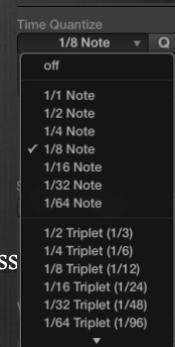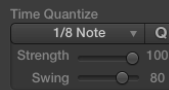
Real-Time Note Input

- Add a Software instrument

- In the Library, Choose Yamaha Grand Piano(or any other piano)

- Play a few notes on the MIDI keyboard controller to hear the piano sound

A MIDI keyboard controller looks like a standard keyboard but it only transmits MIDI data(no built in sounds). The MIDI data is sent via a USB cable
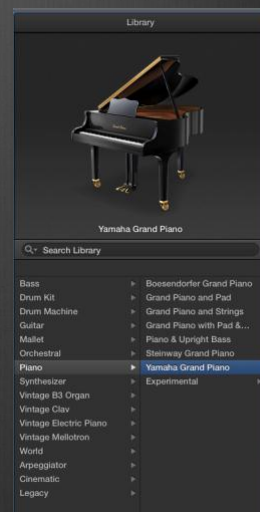
- You need to record 2 chords in real-time, Em7 and Dm7

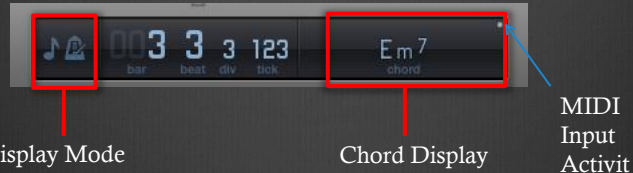| Em7	Dm7
E3 G3 B3 D3	D3 F3 A3 C3

- Play a chord on your MIDI keyboard. The chord name is appears in the LCD display. You can use the display to check if you are playing the right chord.

Display Mode   Chord Display   MIDI Input Activity

- For a more detailed display, click the note and metronome icons to the left of the LCD , and choose Custom

Recording MIDI

- Make sure the playhead is at the beginning of bar 1(press Return or the Go to the Beginning button)

- Make sure the piano track is selected(light grey) and the Record Enable button is activated

RECORD ENABLE BUTTON

Unselected tracks are dark grey

Light Grey selected track

- Click the Record Button or press R

- The playhead jumps back a 1 bar, too give you a 4 beat count-in, and you can hear the metronome.

- Play the chords on beat 3 of every second bar(Bars 2, 4,6 and 8)

- If necessary, slow down the tempo if you are struggling to play it in at the current tempo.
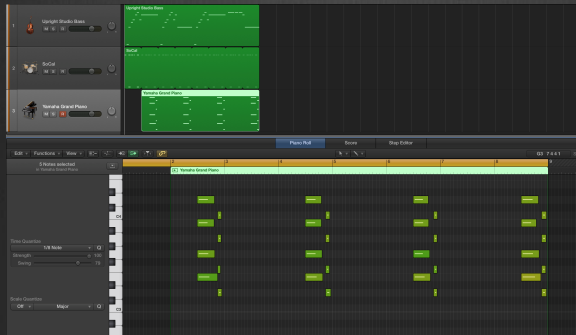
Quantising

- If you not happy with the timing of your MIDI performance, you can correct the timing of the notes using a time-correction method called quantisation.

- To quanstise your piano part, select the Piano region in the workspace

- In the Region Inspector, click the Quantise Value(currently set to off) and choose 1/8 Note(always quantise to the smallest note you played)

- All the MIDI notes in your piano region snaps to the nearest 1/8 note
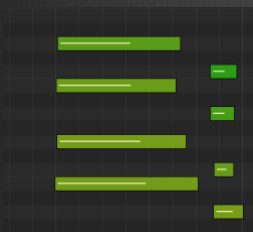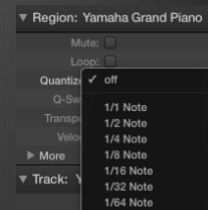
Before Quantising
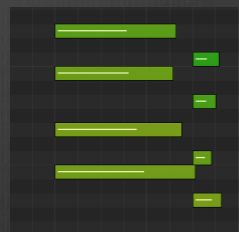
After Quantising

Editing Notes

- In Project 1, you learnt how to lengthen a note with the Resize Tool

- You can create a more realistic performance by editing notes the notes of the Upright Bass Part using:

1. Note Velocity

2. Pitch Bend

3. Transposing Notes
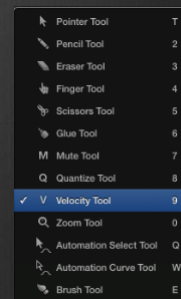
Note Velocity

When you play a MIDI keyboard, you want to control how loud each note is played. To judge how hard you press the keys, MIDI keyboards measure the speed at which each key is depressed. That speed is called *velocity.*

- Editing note velocity is a simple way of adding accents to notes and making the overall performance less mechanical

- In the Left-click Tool menu at the top of the Piano Roll, choose the Velocity Tool(or press T for the Tool Menu and the press 9
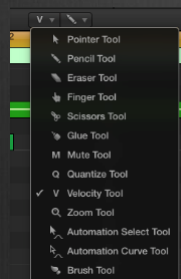
⊛ Using the Velocity Tool, drag the first note up or down. As you dragging the MIDI note is triggered repeatedly so that you can hear the sound of the note at different velocities. Notice at higher velocities the bass sound is plucked harder and have more attack
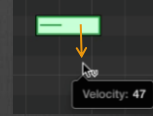
⊛ The velocity value ranges from 0-127 and this is indicated by note colour

Low Velocity   Medium Velocity   High Velocity

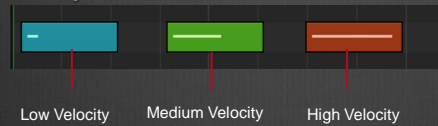⊛ By default all the notes you created has a value of 80

⊛ You will now add accents to every note that's on the beat. Use the table to change the velocity of the notes in bar 1

Note	Rest	D2	A2	B2	C3	D3	E3	C3
Velocity		43	88	40	81	38	85	47

⊛ Listen to the results

⊛ Repeat the process for all other bars, adjusting the values

⊛ Use the table to change the velocity of the notes for the drum part
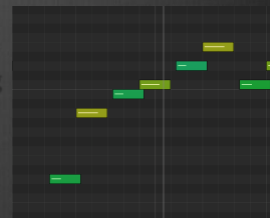
Beats	1		2		3		4	
Ride	69		40	22	50		42	26
Hi-Hat			36				43	

More Performance Techniques

- You can add expression to your performance by using MIDI Continuous Controllers(e.g. Pitch Bend and Modulation Wheel)

- You can add it in real time by adjusting the pitch or modulation wheel on the MIDI keyboard while you play or automate it after the performance.

- You will automate the Pitch Bend controller to add a slide(or note bend) effect on the bass part

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- At the top of the Piano Roll, click the MIDI Draw button

- The MIDI Draw area opens at the bottom of the Piano Roll

- In the MIDI Draw Inspector, from the Controller pop-up menu, choose Pitch Bend

MIDI Draw Button

- You will bend D3 up to E3, delete E3 and lengthen D3

- In the MIDI Draw, click to create a control point at the beginning and end of D3, make sure the value at the control point is zero

- Create another control point at beat 4, and drag it up to the highest value possible

- Create one final control point, approx. 1/8 note long and drag it to the highest value possible

- Listen to the result
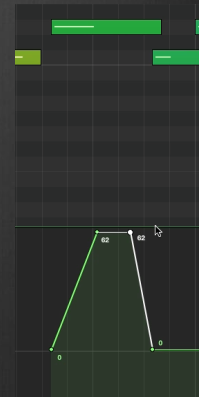
Software Mixer

Now that you arranged your regions in the workspace, you can focus on the sound of each instrument and how they sound together. You can adjust the instruments loudness(Volume) and its position in the stereo field(Pan)

- In the control bar, click the Mixer button(shortcut X)

- At the bot [icons] the Mixer opens

Naming Tracks

- Assign more descriptive names to your channel strip by double clicking on the name and typing the new name, for example: change *Funk Era Beat* to *Drums, Knuckle Down Orchestra Hit* to *Sample*

- Notice the name changes in the Track Area as well.

Adjusting Volume and Stereo Position

✴ Place the mouse pointer between the Track area and Mixer area. The Resize pointer appears

✴ Drag the Resize pointer up as far up as it will go. The Mixer is now taller and you can see more options at the top of the channel strip

✴ The Volume Fader affects how much gain is applied to the signal flowing through the channel strip

✴ The Pan places the instrument in the stereo field. -64 is hard left and +63 is hard right

Pan

Gain

Volume Fader
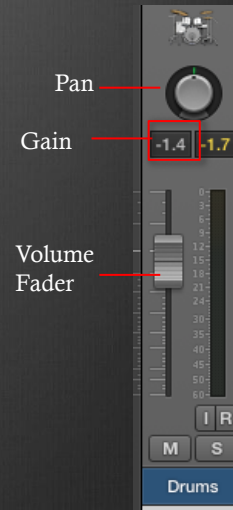
Processing instruments with Plug-Ins

There is more to mixing than adjusting each instrument's volume and stereo position. Now you will apply effect plug-ins to process the audio signal, thereby changing the tone of the instrument

✴ Plug-Ins can be added either as an INSERT or a SEND effect

✴ INSERT effects are added directly to the signal flowing through the channel. It shapes the overall sound, processing such as EQ and Compression is useful as an INSERT

✴ SEND effects are placed on a special track called an Auxiliary or Aux Track and the signal is send via a BUS. You can determine the amount of signal that is sent to the Aux Track. This is useful when you have more than one instrument using the same effect for example putting all instruments in the same space using Reverb.