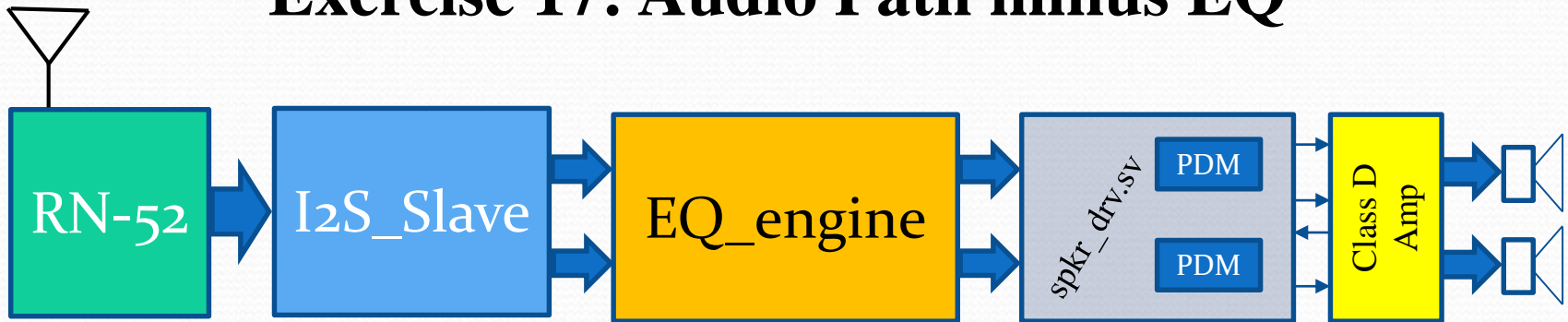


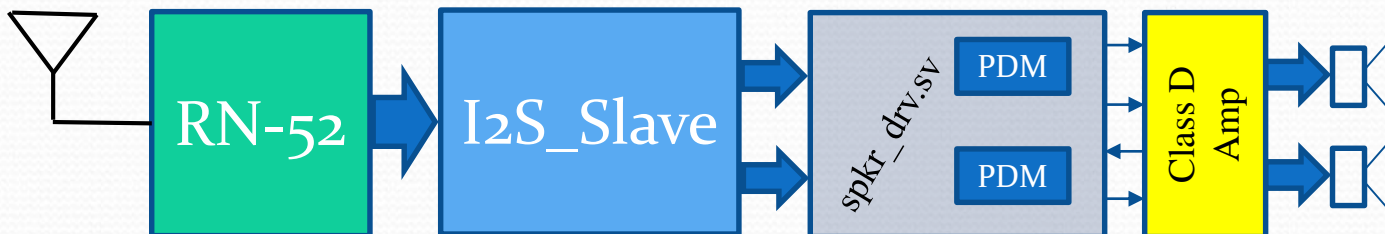
This exercise is to be done as a project team

Exercise 17: Audio Path minus EQ



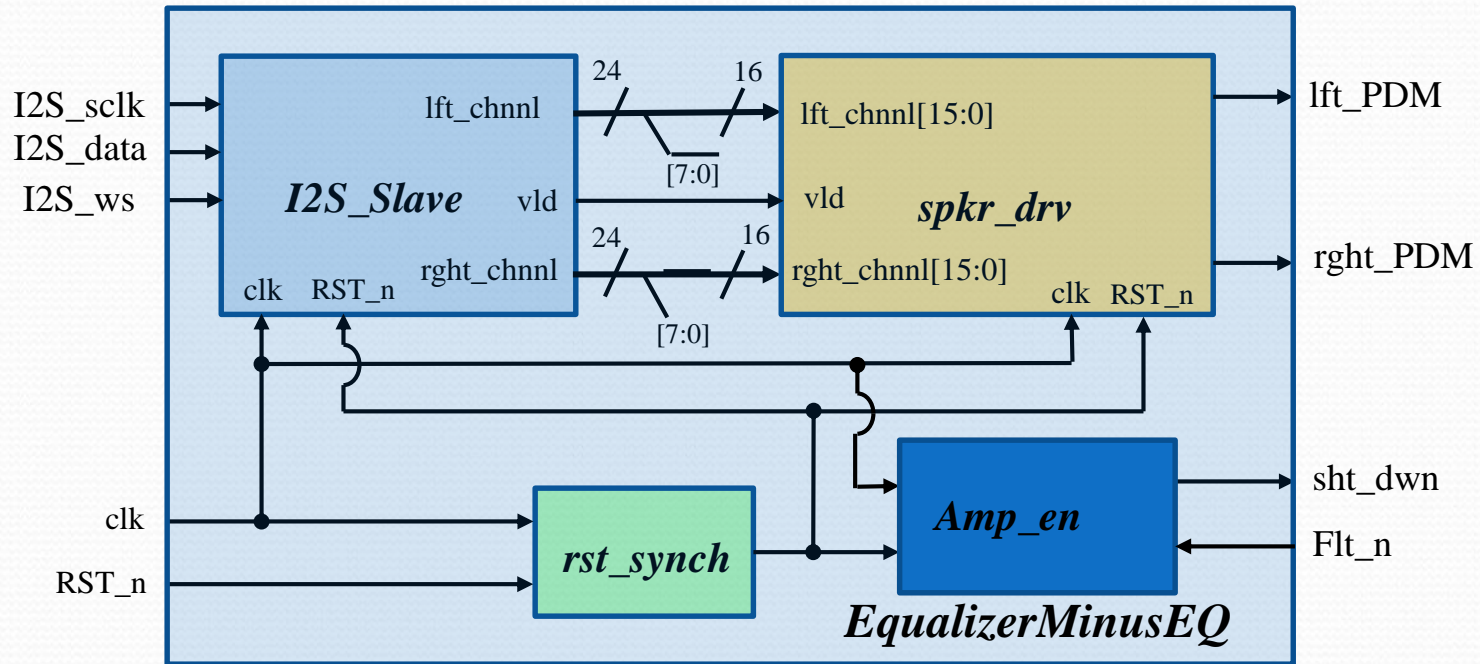
Above is a simplified diagram of the full audio data path

You already have the **I2S_Slave** and now **sprk_drv**



So lets test it all together and make a music in/music out path

Exercise 17: Audio Path minus EQ



- As a project team you should have several choices of **I2S_Slave**, **spkr_drv**, and **rst_synch** implementations to choose from.
- **Amp_en** logic is simple. **sht_dwn** should be asserted for the first 5ms after reset. It should also be asserted any time **Flt_n** goes low, and for 5ms after it rises.
- Download **EqualizerMinusEQ.v** from the canvas page. Look for comments that indicate where to be instantiated or implemented.

Exercise 17: Audio Path minus EQ

- Download the **EqualizerMinusEQ.qps** and **EqualizerMinusEQ.qsf** from the webpage
- Create a Quartus project using these files and get it to compile in Quartus.
- Of course you need the actual platform to test this.
- When it compiles call Eric or Fego over to test.
- You will be checked off as a team.
- This proves your **I2S_Slave** and **spkr_drv** blocks are good.