1. Write the mips code for following code blocks.

```c
int foo = 0xfaad0000;
int bar = 0xbeefdead;
bool x = foo > bar;
while (x == true) {
    foo /= 2;
    bar *= 2;
}
```

```c
int fibb1 = 1;
int fibb2 = 1;
for (int fibbCount = 100; fibbCount > 0; fibbCount--){
    int temp = fibb1;
    fibb1 = fibb2;
    fibb2 = temp + fibb2;
}
int finalFibb = fibb1 + fibb2;
```
2. Extend the attached datapath to support jr and lui instructions. Write the values of all the decoder outputs as well.
(For extra karma and blessings from Verilog gods, try doing these without looking at your lecture slides.)