writeMem(8, 16'b0010000100100111);

writeReg( 1, 16'hffff);

writeReg( 2, 16'h0022);

run(8,1);

readMem(16'h0022,out);

if(out == 16'hffff)

$display("----------------good sto1" );

else

$display("-----------------bad sto1" );

writeMem(9, 16'b0010000100101111);

writeReg( 1, 16'hffff);

writeReg( 2, 1);

run(9,1);

readMem(1,out);

if(out == 16'hffff)

$display("----------------good sto2" );

else

$display("-----------------bad sto2" );

writeMem(7, 16'b0010000100100100);

writeReg( 1, 16'hffff);

writeReg( 2, 16'h0022);

writeMem(16'h0022,11);

run(7,1);

readMem(16'h0022,out);

if(out == 11)

$display("----------------good sto3" );

else

$display("-----------------bad sto3" );