

jr : R-type instruction with funct=8

```
jr $rs
```

example:

```
jr $r7  
pc=$r7
```

- puts rs : instr[25:21] value inside PC reg to perform unconditional jump via reg value
- jr signal added to controller and is assigned to 1 when funct=8 and opcode=8
- implementation :
 - MUX added after the muxes of jump and pcsrc too set pc to regfile[rs] when jr =1
 - when jr =0 pc will be set to value from the muxes that depend on pcsrc and jump

lbu : I-TYPE instruction with OPCODE = 6'b(100100)

```
lbu $rt, imm($rs)
```

example:

```
lbu $r7 82($r3)  
r7=memory[82/4+r3]  
r3 is base address and imm is offset
```

- puts regfile[rt] = instr[7:0] as unsigned value
- rt signal added to control unit and is assigned to 1 when OPCODE = 6'b(100100)

-implementation :

- MUX added after the muxes of lhf and lb too set pc to setregfile[rt] = instr[7:0] as unsigned value when lbu =1
- when lbu =0 pc will be set to value from the muxes that depend on b and half

