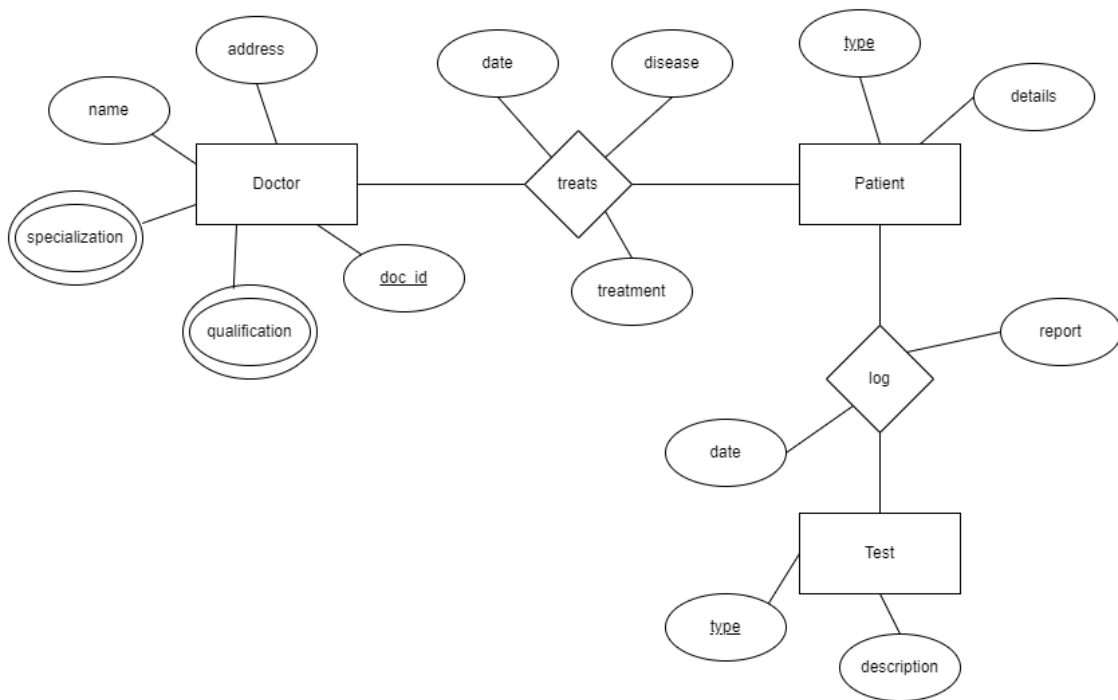
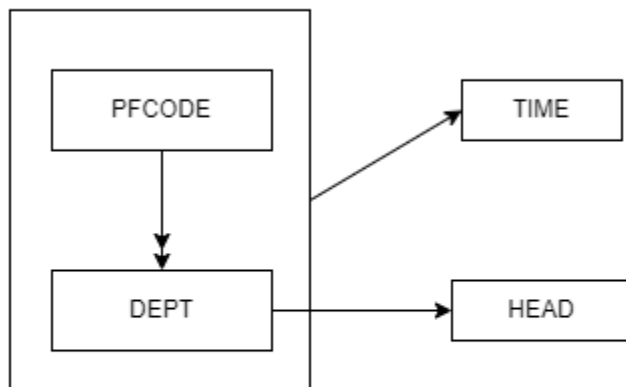


Q3: -



Q6: -



Dependency Diagram

**Q7: -**

The key to the relation is (PFCODE, DEPT).

Partial functional dependency because,

DEPT -> HEAD.

So,

R1 (PFCODE, DEPT, TIME)

R2(DEPT, HEAD)

R1 is not in 4NF, because of multivalued dependency

PFCODE -> DEPT

Therefore, the decompositions are,

R1(PFCODE, DEPT) ---- F1={PFCODE -> DEPT}

R2(PFCODE, TIME)

R3(DEPT, HEAD) ----- F2= {DEPT -> HEAD}

**Q10: -**

Relation Name	Primary key	Attributes	Foreign Key
Part	P#	P# , name, color	NIL
Supplier	S#	S# , name, address	NIL
Can_supply	P#, S#	P#, S#, QTY	P# references Part.P# S# references Supplier.S#
Supplies	P#, S#	P#, S#, QTY, price	P# references Part.P# S# references Supplier.s#