Qn2.

CREATE OR REPLACE FUNCTION checkMaximumWorkHours() RETURNS TRIGGER

AS $$

DECLARE

    projectBudget       INTEGER ;

    currentTotalHours   INTEGER ;

BEGIN

    IF (TG\_OP = 'INSERT') OR (TG\_OP = 'UPDATE') THEN

        SELECT  pbudget INTO projectBudget

        FROM    Projects

        WHERE   pid = NEW.pid;

        SELECT  COALESCE(sum(hours), 0) INTO currentTotalHours

        FROM    Works

        WHERE   pid = NEW.pid;

        IF  currentTotalHours \* 100 > projectBudget THEN

            NEW.hours := FLOOR(projectBudget/100 - currentTotalHours);

        END IF;

        RETURN NEW;

    END IF;

END;

$$ LANGUAGE plpgsql;

CREATE TRIGGER insertUpdateWorks

BEFORE INSERT OR UPDATE ON Works

FOR EACH ROW EXECUTE FUNCTION checkMaximumWorkHours();