

```

DELIMITER $$

CREATE FUNCTION fn_calculer_charge_journaliere_groupe(
    p_groupe_id INT,
    p_jour VARCHAR(20),
    p_edt_id INT
) RETURNS FLOAT
DETERMINISTIC
READS SQL DATA
BEGIN
    DECLARE v_total_heures FLOAT;
    SELECT COALESCE(SUM(
        fn_calculer_duree_seance(heure_debut, heure_fin)
    ), 0) INTO v_total_heures
    FROM Seance
    WHERE groupe_id = p_groupe_id
    AND jour_semaine = p_jour
    AND emploi_du_temps_id = p_edt_id;

    RETURN v_total_heures;
END$$

DELIMITER ;

```

```

DELIMITER $$

CREATE FUNCTION fn_calculer_duree_seance(
    p_heure_debut TIME,
    p_heure_fin TIME
) RETURNS FLOAT
DETERMINISTIC
BEGIN
    RETURN TIMESTAMPDIF(MINUTE,
        CONCAT('2025-12-17 ', p_heure_debut),
        CONCAT('2025-12-17 ', p_heure_fin)
    ) / 60.0;
END$$

DELIMITER ;

```

