Decision Variables

$x_1 = \text{numSprints} \quad (\text{int, } 1 \le x_1 \le 20)$

$x_2 = \text{sprintLength (days)} \quad (\text{int, } 7 \le x_2 \le 30)$

$x_3 = \text{teamSize} \quad (\text{int, } 3 \le x_3 \le 10)$

$x_4 = \text{storyPoints per User Story} \quad (\text{int, } 1 \le x_4 \le 20)$

$x_5 = \text{taskEffort (hours)} \quad (\text{real, } 0.5 \le x_5 \le 16)$

$x_6 = \text{budgetPerFeature} \quad (\text{real, } 1000 \le x_6 \le 50000)$

$x_7 = \text{featuresPerRelease} \quad (\text{int, } 1 \le x_7 \le 10)$

$x_8 = \text{tasksPerStory} \quad (\text{int, } 1 \le x_8 \le 10)$

$x_9 = \text{dailyScrumDuration (min)} \quad (\text{int, } 5 \le x_9 \le 30)$

$x_{10} = \text{testCoverage (\%)} \quad (\text{real, } 0 \le x_{10} \le 100)$

Objectives

$\max F_1(x) = \text{avgVelocity}(x)$

$\min F_2(x) = \text{openBugs}(x)$

$\max F_3(x) = \text{avgSatisfaction}(x)$

$\max F_4(x) = x_{10}$

$\min F_5(x) = \text{timeToMarket}(x)$

$\min F_6(x) = \text{budgetVariance}(x)$

$\max F_7(x) = \text{featuresPerSprint}(x)$

$\max F_8(x) = \text{teamSatisfaction}(x)$

$\max F_9(x) = \text{estimationAccuracy}(x)$

$\max F_{10}(x) = \text{releaseAdherence}(x)$

Constraints

$$\text{C1:} \quad x_3 \leq 10 \tag{1}$$

$$\text{C2:} \quad \sum_{s \in \text{RequiredSkills}} \mathbf{1}_{\text{assigned}(s)} \geq 1 \tag{2}$$

$$\text{C3:} \quad \text{actualCost}(x) \leq \text{Budget} \tag{3}$$

$$\text{C4:} \quad \sum_{\text{tasks } t} \text{effort}_t(x) \leq x_3 \times \text{capacityPerMember} \tag{4}$$

$$\text{C5:} \quad \text{openBlockers}(x) = 0 \tag{5}$$

$$\text{C6:} \quad x_2 \geq 7 \tag{6}$$

$$\text{C7:} \quad \text{attendanceRate}(x) \geq 0.90 \tag{7}$$

$$\text{C8:} \quad \text{backlogSize} \leq 200 \tag{8}$$

$$\text{C9:} \quad \frac{\text{scheduledHighPriority}(x)}{\text{totalHighPriority}} \geq 0.80 \tag{9}$$

$$\text{C10:} \quad \text{reviewCount}(x) \geq 1 \tag{10}$$