Topic name- design thinking for professional skills (classroom learning)

Task06- gap analysis

Smart water bottle (hydration-tracking IOT water bottle)

Current State- (Features)- track water intake via sensors, Syncs with fitness apps

(user complaints)- poor battery life (last <2 days), No reminders for electrolyte needs, Bulky design (hard to carry)

Desired states- User expectations- week-long battery, AI-powered hydration tips, Slim, collapsible design

Market trends- 60% of users prioritize portability

Gap identification-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | current | future | Gap | Solution |
| Battery life | 48 hours | 7 days | 5-day deficit | Solar-charging case protype |
| Custom reminders | Only water intake alerts | Electrolyte, sleep tips | Lack of personalization | AI-driver hydration algorithm |
| portability | 500g, rigid | <300g, collapsible | Weight/design issues | Food-grade silicon redesign |

Priortization matrix-

|  |  |  |  |
| --- | --- | --- | --- |
| Gap | User impact(1-5) | Feasibility(1-5) | Priority(L/M/H) |
| Battery life | 5 | 3 | High |
| Electrolyte reminders | 4 | 4 | High |
| Collapsible design | 5 | 2 | medium |

Yogesh verma

RAI(2410090017)