Birla Institute of Technology & Science, Pilani
Work Integrated Learning Programmes Division
First Semester 2024-2025

Mid-Semester Test
(EC-2 Makeup)

Course No.   : SESAPZG685
Course Title   : Software Product Management
Nature of Exam   : Closed Book
Weightage   : 30%
Duration   : 2 Hours
Date of Exam   : 6 OCT 2024 FN
Note to Students:
• Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
• All parts of a question should be answered consecutively. Each answer should start from a fresh page.
• Assumptions made if any, should be stated clearly at the beginning of your answer.

Q1. Assess value through interviews: "Health-meter" is a product planned to be developed as a combination of sensors, hardware & software to measure the vital signs of an individual such as temperature, blood pressure, pulse, glucose level, oxygen level in blood, etc. The product is planned to be a self-service kiosk kept in offices. Employees can measure their vitals regularly to detect abnormal trends. This product will be useful for employees who have heart problems, high blood pressure, diabetes, etc.
Explain the below questions with example and justification.
  • Design 3 open ended questions to be asked to the employees to assess the value of this product.   [3]

How do you currently monitor your health and vital signs, and what challenges do you face in doing so?
How would having access to a self-service kiosk like Health-meter impact your daily routine or overall well-being at work?
What features or functionalities would make the Health-meter more valuable or user-friendly for you?

  • What is the opportunity in this product?   [3]

Early detection of health issues can lead to better outcomes and reduced healthcare costs.
Enhanced workplace wellness programs can improve employee productivity and job satisfaction.
Aggregate data from the Health-meter kiosks can provide valuable insights for employers and healthcare providers.
Reduced healthcare costs through preventive care.

  • What is the risk associated with this product? How to mitigate the risk?   [3 + 3]

1. Risk:
Inaccurate or unreliable measurements can lead to misdiagnosis or delayed diagnosis of health issues.
Mitigation:
Calibration and Validation: Ensure that the sensors and hardware are calibrated regularly and validated against standard medical devices.
Quality Control: Implement rigorous quality control processes during manufacturing to ensure consistency in performance.

2. Risk: Sensitive health data could be compromised due to inadequate security measures.
Mitigation:
Encryption: Use end-to-end encryption for data transmission and storage.
Compliance with Regulations: Ensure compliance with health data protection regulations
Secure Access Controls: Implement robust access controls, including multi-factor authentication, to protect user data.

3. Risk: Users may not use the device correctly, leading to inaccurate readings or misuse of the device.
Mitigation:
Clear Instructions: Provide clear, easy-to-follow instructions for use.
Onboarding Process: Develop an onboarding process that includes tutorials or guided sessions for first-time users.
Feedback Mechanisms: Implement feedback mechanisms that alert users if they are using the device incorrectly.

Q2. Apna is a software (similar to Naukri.com) that helps blue collar workers to find jobs as delivery boys, in petrol pumps, as carpenters, etc.?

- State two metric each for Apna that can be used to measure the value delivered by the product. The metric should be other than the number of users and other than revenue, profit, annual revenue growth. Justify your answer. [4]

- Job Placement Rate

- Metric: The percentage of job seekers who secure employment through the platform within a specified timeframe (e.g., 30 days, 60 days). Justification:

This metric directly measures the effectiveness of Apna in helping job seekers find employment. A high job placement rate indicates that the platform is successfully connecting workers with relevant job opportunities.

It also reflects the quality of job listings and the matching algorithm's efficiency in pairing candidates with suitable jobs.

- 2. Employer Satisfaction with Hires

- Metric: The percentage of employers who report being satisfied with the quality of hires made through the platform. Justification:

Employer satisfaction is crucial because it indicates whether the platform is providing value to its business users. High satisfaction rates suggest that employers are finding qualified and suitable candidates through Apna.

This metric can be measured through surveys or feedback forms sent to employers after they have made hires through the platform.

- Describe the Product Market Fit with examples   [4]

Target Customers

Primary Target Customers:

Blue-Collar Workers: Individuals seeking employment in roles such as delivery boys, petrol pump attendants, carpenters, electricians, and other skilled or unskilled labor jobs.

Secondary Target Customers:

Employers: Small businesses, startups, and larger enterprises looking to hire blue-collar workers.

Underserved Needs

For Blue-Collar Workers:

Access to Job Opportunities:

Simplified Application Process:

Trust and Reliability:

For Employers:

Efficient Hiring Process:

Quality of Hires:

Cost-Effective Recruitment:

Value Proposition

For Blue-Collar Workers:

Easy Access to Relevant Jobs:

Streamlined Application Process:

Verified Job Listings:

Community Support:

For Employers:

Efficient Hiring:

Candidate Filtering:

Cost-Effective Recruitment:

Feedback Mechanisms:

Feature Set

User Profiles:

Job seekers can create detailed profiles highlighting their skills, experience, and education.

Job Search:

Advanced search filters by location, job type, skill requirements, etc.

Application Management:

Easy application process with one-click apply

UX:

For both desktop application and mobile application with voice search and easy UI.

Case Study Example

Case Study - Delivery Boy Placement:

Rohan, a delivery boy, was looking for a new job after losing his previous one due to company restructuring. He downloaded Apna and created a profile highlighting his experience in logistics and customer service.

Q3. Considering Peter Drucker's sources of innovation, which source of innovation led to below products? Justify your answer.   [2 x 5]

- Byjus

The Process Need

Traditional education systems often have limitations such as one-size-fits-all teaching methods, lack of personalization, and limited access to quality educational resources. Byju's identified these process needs in the education sector and innovated by creating a platform that addresses them.

By leveraging technology to provide interactive content, personalized learning paths, and comprehensive curriculum coverage, Byju's transformed the way students learn. This innovation directly addresses the inefficiencies and gaps in traditional educational processes.

- AirBnB

The Change in Industry Structure or Market Structure

Airbnb capitalized on changes in the way people travel and stay in destinations. The rise of the sharing economy, increased mobility, and changes in consumer behavior created a new market structure where peer-to-peer accommodation sharing became viable.

By leveraging this shift, Airbnb innovated by creating a platform that connects hosts with guests directly, bypassing traditional hotel chains. This disruption transformed the hospitality industry by offering a new way for people to find and book accommodations.

- Paytm

The Change in Industry Structure or Market Structure

Paytm capitalized on significant changes in the financial services industry structure and market dynamics. The Indian government's push for digitalization and cashless created a new market structure that favored digital payment solutionsBy leveraging this shift towards digital payments, Paytm innovated by creating a platform that enables easy, secure, and convenient transactions. This disruption transformed the way people make payments and manage their finances.

- Ola

The Change in Industry Structure or Market Structure

Change in Industry Structure or Market Structure: Ola capitalized on significant changes in the transportation industry structure and market dynamics. The rise of smartphones and mobile internet created a new market structure where ride-hailing services could thrive.

By leveraging this shift towards mobile-based services, Ola innovated by creating a platform that connects drivers with passengers directly, bypassing traditional taxi dispatch systems. This disruption transformed the way people travel within cities.

- EV 2 Wheeler and 3 Wheeler

The Change in Perception and Meaning:

Environmental Concerns:

Traditional fossil fuel-based vehicles contribute significantly to air pollution and greenhouse gas emissions.

Government Regulations:

Many governments are implementing policies to encourage the adoption of electric vehicles (EVs) to reduce environmental impact.

Technological Advancements:

Improvements in battery technology have made EVs more viable in terms of range, efficiency, and cost.