

PGDM (RM), 2016-18
MIS & Advance Excel
RM-107

Trimester – I, End-Term Examination: September 2016

Time allowed: 2 hrs 30 min

Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means**. In case of rough work please use answer sheet.

Sections	No. of Qs to attempt	Marks	Marks
A	3 out of 5 (Short Qs)	5 Marks each	3*5 = 15
B	2 out of 3 (Long Qs)	10 Marks each	2*10 = 20
C	Compulsory Case Study	15 Marks	15
		Total Marks	50

SECTION-A

Answer any 3 out of 5 (Short Qs) – 5 Marks each

Q-A1 – What advantage do non-relational databases and cloud databases provide to businesses?

Q-A2 – Which of the four major types of information systems do you think is the most valuable to an organization?

Q-A3 – Discuss the advantages of a company using the TCP/IP standard to build a network.

Q-A4 – Describe the difference between push-based supply models and pull-based supply models.

Q-A5 – Explain, how an advertising network such as doubleclick.net works?

SECTION-B

Answer any 2 out of 3 (Long Qs) – 10 Marks each

Q-B1 – Describe the three capabilities of database management systems: data definition, data dictionary, and data manipulation language. Discuss the importance of creating and using a data dictionary with a large corporate database.

Q-B2 – Explain various Revenue Models in online business with suitable example.

Q-B3 – What is the advantage of using an application software package? What types of application software packages could you use in your organization?

Turn Over...

SECTION-C

Case study – 15 Marks (3X5 marks)

THE CHALLENGE OF MOBILE APPLICATION DEVELOPMENT

Just as everyone today has (or wants) a mobile phone, every business wants mobile apps. Companies of all stripes realize that the target audiences for their applications have shifted from users of personal computers to users of mobile devices. Businesses are frantically struggling to become more mobile, and they want them developed in very short time frame. That's not so easy.

Developing successful mobile apps poses some unique challenges. The user experience on a mobile device is fundamentally different from that on a PC. There are special features on mobile devices such as location-based services that give firms the potential to interact with customers in meaningful new ways. Firms need to be able to take advantage of those features while delivering an experience that is appropriate to small screen. There are multiple mobile platforms to work with, including iOS, Android, and Windows 8, and a firm may need a different version of an application to run on each of these. System-builders need to understand how, why and where customers use mobile devices and how these mobile experiences change business interactions and behavior. You can't just port a web site or desktop application to a Smartphone or tablet. It's a different systems development process. InterContinental Hotel Group (IHG), which includes InterContinental Hotels, Crowne Plaza Hotels & Resorts, and Holiday Inns clearly needs a mobile app to stay competitive. The Group must compete with other hotel chains and also online services with mobile apps such as Booking.com, Orbitz.com, and Hotels.com, which handle reservations for hundreds of thousands of hotels. Mobile devices are quickly becoming the preferred method of booking reservations online, and IHG doesn't want to miss the opportunity.

Guests can use IHG's mobile app, IHG Mobile, to book rooms at any of IHG's 4,800 hotels. In addition, the IHG Mobile app includes customer reviews, photos of the hotel and surrounding neighborhood, maps, and directions to nearby locales, push notifications, access to special corporate rates, and the ability to manage points for the IHG rewards program. The app is available for 8 different mobile platforms.

Maintaining this app requires constant teamwork between marketing and mobile application developers. Bill Keen, director of IHG mobile solutions, works with a team of eight product managers and 12 information technology specialists on IHG mobile. The 12 mobile developers have expertise in mobile application design and building APIs that access IHG's transaction systems and public information services such as weather and maps. An API is an application programming interface that specifies how software components should interact. Both groups are housed in the same building and have face-to-face meetings every morning to test new features and discuss next steps.

The team works on app features and enhancements in two-week sprints. The product managers select the next mobile app feature to work on and the mobile application developers then inform them what can be done in the next two-week sprint. The product managers make the final decision about what to do in that time frame. Both groups use an Agile development process and operate as single unit sharing responsibilities and accountability.

Supporting the team are an information architect and graphic designer. They analyze what hotel guests need from the app, based on customer feedback, and establish the interactive pattern design, photos, and graphics. The design is then handed to the developers to coded into software programs and deploy.

Mobile apps should not be built for the sake of going mobile but for genuinely helping the company become more successful. The mobile app will need to be connected in a meaningful way to the systems that power the business. Alex and Ani learned this when it developed a mobile app for employees in its stores to use to help customers make selections and then complete the purchase transaction.

Alex and Ani, founded in 2004, designs, produces, and sells high-quality, eco-friendly jewelry in the U.S using artisanal techniques, and is dedicated to helping its customers find inner peace and positive energy. Having customers in Alex and Ani stores wait on long checkout lines ran counter to the company's philosophy and brand image.

Working with Mobiquity, a developer of enterprise mobile solutions, Alex and Ani created a mobile point-of-sales and payment solution where Alex and Ani's Bangle Bartenders can swipe credit cards, scan bar codes, and print, allowing a customer to sign and receive a copy of the credit-card receipt at the time of purchase while they are in the store aisles. They do not have to wait in line for a cashier. The mobile app helps store sales staff to be more attentive to customers while reducing time to pay for purchases. This enhances the in store customer experience, improves brand perception, and provides better customer service, thereby increasing sales revenues.

The starting point for developing a mobile app is to identify the mobile moments (occasions when someone would pull out a mobile device to get something done) where a mobile app would be especially helpful. Alex and Ani's chief technology officer Joe Lezon and head of retail operations Susan Soards mapped out the mobile moments where employees interact with customers. They then specified the context – the situation, preferences, and attitudes of customers and employees in these mobile moments. Lezon and Soards determined where physically in the store mobile moments occur, how long they last, the stage of the checkout process, what information is available, and customer expectations.

The second step is to design the mobile engagement. Business people, designers, and app developers get together to decide how to engage a customer during mobile moments, and which moments benefit both the customer and the company. A mobile app for moments that benefit both customers and the company is more likely to be successful. Alex and Ani had a small team draw pictures to design the mobile engagement, mapping out exactly how an employee would use an iPod Touch application and a credit card reader/printer linked directly to the company's point-of-sale system to engage customers. The design specifications included screen layouts, the sequence of events, and transactions need at each step.

The third step is to engineer people, processes, and platforms to deliver the mobile experience. An effective mobile app often requires changing the firm's internal systems, such as those for inventory management, customers, and reservations. Changing those systems typically requires new APIs and tuning the systems to respond more quickly to requests; such changes account for 80 percent of the cost of most mobile projects. Alex and Ani connected their mobile app to the company's point-of-sale systems as well as to systems with detailed product information.

The fourth, final step is to monitor performance and improve outcomes. Alex and Ani analyzed its mobile retail application to determine the length of time for checkouts, whether the app reduces checkout time from minutes to seconds and which customers' complete transactions.

Case Study Questions:

1. What management, organization, and technology issues need to be addressed when building mobile applications?
2. How does user requirement definition for mobile applications differ from traditional systems analysis?
3. Describe Alex and Ani's sales process before and after the mobile applications was deployed.