第 50 屆全國技能競賽暨第 46 屆
國際技能競賽國手第一階段選拔賽

資訊技術（軟體設計）職類
競賽試題及評分彙總表

競賽及評分項目

☐ 商業資料建置 **EngTyping**	☐ 資料處理分析與簡報設計 **DA&PPT Design**	☐ 系統分析與資料庫設計 **SA&DB Design**
☐ 商用軟體設計一 **Software Design 1**	☐ 商用軟體設計二 **Software Design 2**	☑ 行動 App 設計 **App Design**

選　手　編　號：＿＿＿＿＿＿＿＿＿＿

抽籤崗位號碼：＿＿＿＿＿＿＿＿＿＿

選　手　姓　名：＿＿＿＿＿＿＿＿＿＿

總　　分：＿＿＿＿＿＿＿＿＿＿

評　分　老　師：＿＿＿＿＿＿＿＿＿＿

Session 6 Shanghai Disneyland Resort App

Scenario and Requirement

At present, the person in charge of the development project has gotten some of the app schematic screens from Tokyo Disneyland, for your reference and design the "**Shanghai Disneyland Resort App**" that meets the use of Shanghai Disney Resort.

Hint：The above operation interface of Tokyo Disneyland is for reference only and does not need to be identical, as long as the operation process is just meet the requirements with the function.

Please use Android Studio 3.6.3 design tools with MS SQL 2019 database ”***DisneySH_ANM.Bak*** ” (***NM:*** Your Workstation Number), according to task descriptions to design App with related API, including system processes, user interface and detail functions.

For the addition, deletion, and modification of data, it is necessary to design a user interface and interface with a SQL database through Web API to provide real-time and correct data presentation.

Note: The IIS Web Server will be pre-built on the computer in each competitor's work position as the deployment location for developing Web API.

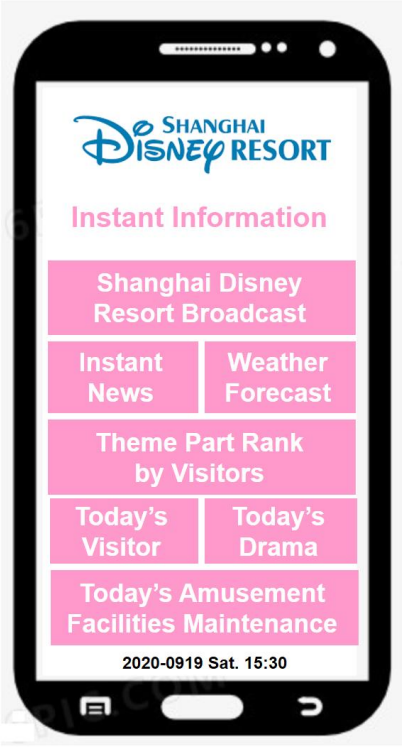
This **“Shanghai Disneyland Resort App”** design plan or execution file named as “***Disney Resort SH***”. This system will be deployed to Shanghai Disneyland Resort to provide visitors enquiries and self-service. Please design the easy-to-operate main screen and the user interface of each function module, and connect to the SQL database via your designed API. Visitors could operate the following functions.

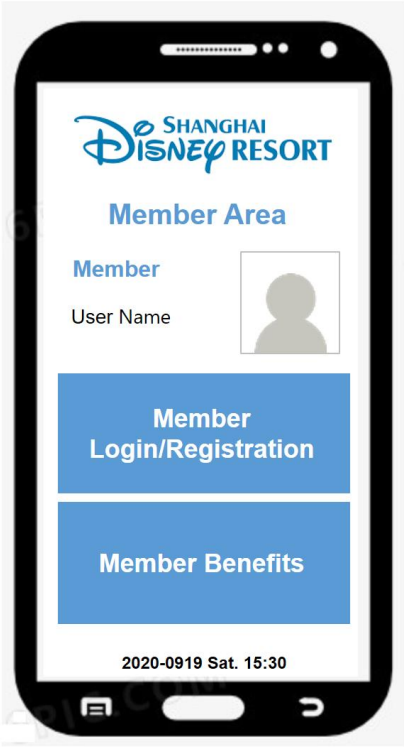
Function Menu and Sample User Interface

Functions of “Shanghai Disneyland Resort App” for Visitors and Members

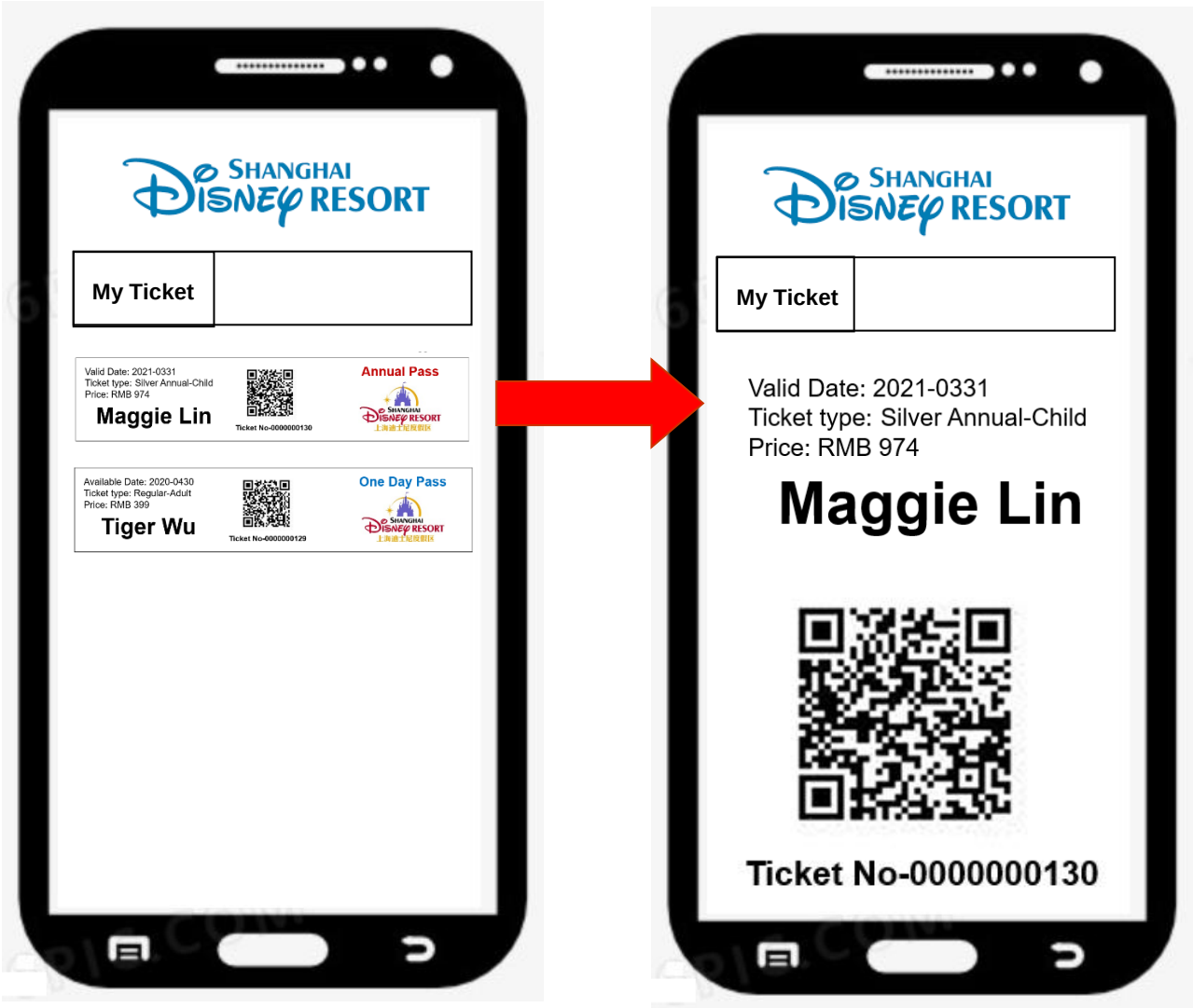
- **Introduction**
  - About Shanghai Disneyland Resort
  - Travel Information
  - Tickets and Passes
  - Introduction to Attractions
  - Daily Drama Schedule
  - Daily Amusement Facilities Schedule
- **Instant Information**
  - Shanghai Disney Resort Broadcast
  - Instant News
  - Theme Park Rank by Visitors
  - Today’s Visitors
  - Today’s Drama
  - Today’s Amusement Facilities Maintenance
  - Weather Forecast
  - Information of Today’s Date, Day of the week, Time.
- **Member Area**
  - Member Login/Registration
  - Member Benefits

Sample User Interface for Visitors and Members





Sample User Interface for Members



User interface must contain at least the following requirement lists:

Precautions:

1. You are request to refer provided MS SQL database to design your user interface, including Tables, Fields, and data records.
2. Shanghai Disneyland Resort provide "***DisneySH_UI_Style Guide.docx***" and some image files inside the folder "***\Software Design 1\Data***" for your design work. Using Shanghai Disneyland Resort Logo, UI color and style need to match with them.
3. Different user permissions can use the same user interface, but for data browsing, searching (querying), setting, deleting and other permissions, there will be the difference.
4. You could modify or create new database Table accompanied with your system designing task.
5. You will get more score if all the user interfaces design is completely and friendly.
6. Save your Android Studio 3.6.3 designed project name as "***Disney Resort SH***".
7. Please write a ***"Readme.txt"*** to indicate the path and file name of your newest APK file.

Note: Deduct 2 if file name is mistake.

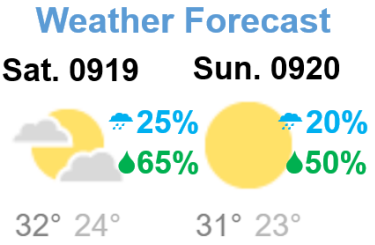
Session 6 Marking Sheet

App Design Task Descriptions		Max Score	Actual Score
Please design the main screen and "Introduction" user interface (for Group "Guest or Member") of Shanghai Disneyland Resort App.			
(1)	**"Shanghai Disneyland Resort App"** design plan or APK file name "***Disney Resort SH***" is correct **(deduct 2.0 if mistake)**, the link and backup SQL database file name is correct **(deduct 2.0 if mistake)** "***DisneySH_ANM.Bak*** " (***NM:*** Your Workstation Number) A ***"Readme.txt"*** to indicate the path and file name of your newest APK file. **(deduct 2.0 if mistake)**	0	
(2)	**Guest and Member:** Design on "**Main screen**" user interface for "**Shanghai Disneyland Resort App**" is completely and friendly. Special request for Main screen, including: ● System name and Logo. **(0.5)** ● Installed icon with Logo. **(0.5)** ● UI and object linking to "**Introduction**". **(0.5)** ● UI and object linking to "**Instant Information**". **(0.5)** ● UI and object linking to "**Member login/Registration**". **(0.5)** Deduct 0.5 on each mismatch or mistake for every above-mentioned function.	2.5	
(3)	**Guest and Member: UI and** Function **design for "Introduction" of "Shanghai Disneyland Resort App**". Please refer page 3 and data in folder "***Software Design 1\Data\Shanghai Disneyland Resort.docx***" and related images files to design "**Shanghai Disneyland Resort App**" user interfaces and related Link. **Hint:** You don't need to import all "***Shanghai Disneyland Resort.docx***" into database, you could design static page with control options to show indicated contents on APP. ● Object linking to "**About Shanghai Disneyland Resort**" and show related information (texts and photo). - Show all related information (texts). **(0.5)** - Show Shanghai Disneyland Resort Map "***00 Shanghai Disneyland Resort Map.jpg***" **(0.5)** ● Object linking to "**Travel Information**" and show related information (texts and photos). - Show all related information (texts). **(0.5)** - The font size and paragraph of the title and body text are easy to identify and read. **(0.5)** - Show related photos on correct place. **(1.0)** ● Object linking to "**Tickets and Passes**" and show related information (texts and photos).	22.0	

App Design Task Descriptions	Max Score	Actual Score
- Show all related information (texts). **(0.5)** - The font size, bullet, and paragraph of the title and body text are easy to identify and read. **(0.5)** - Show all related table and content with correct font setting. **(2.0)** - Show related photos on correct place. **(0.5)** ● Object linking to "**Introduction to Attractions**" and launch following assigned function (texts and photos). - Please refer to following diagram to design three linked drop-down box, it will show correct "**Main Attractions**", "**Secondary Attractions**" while user select specific "**Theme Park**". **(2.0)** **Theme Park** / **Main Attractions** / **Secondary Attractions** Fantasyland / Enchanted Storybook Castle / Golden Fairytale Fanfare - Each "**Theme Park**" has the correct corresponding "Theme Park Introduction" **(1.5)** - There are total 43 amusement facilities for "**Main Attractions**" and "**Secondary Attractions**". Each "**Main Attractions**" or "**Secondary Attractions**" has the correct corresponding photo. **(3.0)** ● Object linking to "**Daily Drama Schedule**" and show related information (texts). - Show all related information (texts). **(0.5)** - The font size, bullet, and paragraph of the title and body text are easy to identify and read. **(0.5)** - Show all related table and content with correct font setting. **(1.5)** - Show related photos on correct place. **(0.5)** ● Object linking to "**Daily Amusement Facilities Schedule**" and show related information (texts). - Show all related information (texts). **(0.5)** - Show table and content with correct font setting. **(0.5)** ● The display content for every above screen, including Today's Date, Day of the week, Time. **(1.0)** ● Design **button effect and show the related content** - Lighter color while moves over button. **(0.5)** - Darker color while press button. **(0.5)** - While press specific function button in "**Introduction**" area, show correct content on your designed area. **(3.0)** Deduct 0.5 on each mismatch or mistake.		

App Design Task Descriptions		Max Score	Actual Score
Please design required API and related system management interface which could linking internal database or parsing specific external data source files (JSON, XML files).			
(4)	**Design Web API for "Instant News" of APP "Instant Information"** Please refer to data in folder "***Software Design 1\Data\Advertisement.xml***" to design "**Instant News**"Web API, system management user interfaces and functions. ● Please continue to develop your designed Web API, its project name (site name, solution name) is "***DisneySH_API_NM***" (***NM:*** Your Workstation Number) with "***APP_InstantNewsService"***. Design API to parse and send exchange data in XML file "***Advertisement.xml***" on your Web server. **(5.0)** **Note: Please use http protocol.** ● Please don't import XML file "***Advertisement.xml***" into SQL database. APP must linking data via API and show them on assigned format. **(2.0)** Deduct 1 on each mismatch or mistake for every above-mentioned function.	7.0	
(5)	**Design Web API for "Weather Forecast" of APP "Instant Information"** Please refer to data in folder "***Software Design 1\Data\Weather Forecast.json***" to design "**Weather Forecast** "Web API, system management user interfaces and functions. ● Please continue to develop your designed Web API, its project name (site name, solution name) is "***DisneySH_API_NM***" (***NM:*** Your Workstation Number) with endpoint "***APP_WeatherForecastService"***. Design API to parse and send exchange data in JSON file "***Weather Forecast.json***" on your Web server. **(5.0)** **Note: Please use http protocol.** ● Please don't import JSON file "***Weather Forecast.json***" into SQL database. System must linking data via API and show them on assigned format. **(2.0)** Deduct 1 on each mismatch or mistake for every above-mentioned function.	7.0	
(6)	**Design Web API for "Number of Visitors" of APP "Instant Information"** Please refer to data in folder "***Software Design 1\Data\DisneySH_Visitors.json***" to design "**Number of Visitors** "Web API, system management user interfaces and functions. ● Please continue to develop your designed Web API, its project name (site name, solution name) is "***DisneySH_API_NM***" (***NM:*** Your Workstation Number) with endpoint "***APP_DisneySH_VisitorsService"***. Design API to parse and send exchange data in JSON file "***DisneySH_Visitors.json***" on your Web server. **(5.0)** **Note: Please use http protocol.** ● Please don't import JSON file "***DisneySH_Visitors.json***" into SQL database. System must linking data via API and show them on assigned format. **(2.0)**	7.0	

App Design Task Descriptions		Max Score	Actual Score
	Deduct 1 on each mismatch or mistake for every above-mentioned function.		
(7)	**Design Web API for others information of APP "Instant Information"** ● APP must linking data of SQL database via API and show them on assigned format. **(2.0)** ● Please continue to develop your designed Web API, its project name (site name, solution name) is "***DisneySH_API_NM***" (***NM:*** Your Workstation Number) with endpoint "***APP_InformationService"***. Design API to parse and send exchange data of SQL database on your Web server. **Note: Please use http protocol.** - Shanghai Disney Resort Broadcast **(2.0)** - Theme Park Rank by Visitors **(2.0)** - Today's Drama **(2.0)** - Today's Amusement Facilities Maintenance **(2.0)** - Member login/Registration **(3.0)** Deduct 1 on each mismatch or mistake for every above-mentioned function.	13.0	
(8)	**Design Description Document for your Web API** Please refer to data in folder "***Software Design 2\Data\ API description for QRCode.docx***" to design description document for all of your designed Web API(s), and save file name as "***API description for Disney Resort SH.docx***". **(4.0)** Deduct 0.5 on each mismatch or mistake for every above-mentioned function.	4.0	
Please design an easy-to-operate user interface for each functional module, and link it to the SQL database via your designed API. **Group "Guest" or "Member" could operate the following functions.**			
(9)	**Guest and Member: Design UI and Function for "Instant Information" of "Shanghai Disneyland Resort App".** Please refer page 3 to design UI and functions to design **"Instant Information" of** "**Shanghai Disneyland Resort App**", including: ● The display content and effect meet expectations in your designed "**Shanghai Disney Resort Broadcast**" display area. **(2.0)** ● The display content and effect meet expectations in your designed "**Instant News**" display area. **(2.0)** ● The display content and effect meet expectations in your designed "**Theme Park Rank by Visitors**" display area. **(2.0)** ● The display content and effect meet expectations in your designed "**Today's Visitors**" display area. **(2.0)** ● The display content and effect meet expectations in your designed "**Today's Drama**" display area. **(2.0)** **Note:** Show all Drama Schedule after this moment today.	22.0	

App Design Task Descriptions		Max Score	Actual Score
	● The display content and effect meet expectations in your designed "**Today's Amusement Facilities Maintenance**" display area. **(2.0)** **Note:** Show all Amusement Facilities Schedule after this moment today. ● The display content and effect meet expectations in your designed "**Weather Forecast**" display area. **(5.0)**  ● The display content for every above screen, including Today's Date, Day of the week, Time. **(1.0)** ● Design **button effect and show the related content** - Lighter color while moves over button. **(0.5)** - Darker color while press button. **(0.5)** - While press specific function button in "**Instant Information**" area, show correct content on your designed area. **(3.0)** **Hint:** Newest Schedule: Show all Drama Schedule and Amusement Facilities Schedule after this moment today. Deduct 1.0 on each mismatch or mistake for every above-mentioned function.		
(10)	**Member: Design UI and Function for "Member Area" of "Shanghai Disneyland Resort App"**. Please refer page 3 to design UI and functions to design **"Member Area"** of "**Shanghai Disneyland Resort App**", including: ● Design UI and functions of "**Member Benefits**" are completely and friendly, including: - Member's special price and Benefits (Key Features) of Silver Annual Pass. **(1.0)** - Member's special price and Benefits (Key Features) of Gold Annual Pass. **(1.0)** - Member's special price and Benefits (Key Features) of Diamond Annual Pass. **(1.0)** **Hint:** Please refer to data "**Tickets and Passes**" in folder "***Software Design 1\Data\Shanghai Disneyland Resort.docx***" to design UI and functions of "**Member Benefits**". ● Design UI and functions of "**Member login/Registration**" are completely and friendly, including: - Login UI, including System Name, Logo, User's Login ID and password, Member Registration. **(1.0)** - Verify User's passwords must use a strong password rule. **(2.0)** ✧ At least 8 characters. ✧ Uppercase English letter ✧ Lowercase English letter ✧ Numeric	9.5	

App Design Task Descriptions		Max Score	Actual Score
	✧ Symbol ● Verify User's Login ID must unique in this system. **(1.0)** ● Registration (Create) new or edit own **"Personal Information Management (PIM)"**, every input field include format checking. **(1.0)** - Name - Birthday - Gender - Citizenship - Email ● Create 3 users' account with **PIM** in database and save their users account as filename "***APP_Member Login Account.txt***", including: ID, Password, user permissions group. **(0.5)** ● Show correct "**Group**", "**User Name**", and "**User Photo**" on the right-top side while login successfully. **(1.0)** Deduct 0.5 on each mismatch or mistake for every above-mentioned function.		
(11)	**Member: Design UI and Function for "Member Area" of "Shanghai Disneyland Resort App"**. Please develop UI, Functions, and related Web API to meet following requirement. ● Member could order **Shanghai Disneyland Resort Tickets** online after Login in successfully. - Select One day Pass or Annual Pass. **(1.0)** - Guide to choose the relevant Standard Price or Special Price under different identities. **(2.0)** - Input quantities of each ticket type, and calculate subtotal. **(2.0)** - Payment and Bill: discount with different payment method. **(3.0)** 0.05 by Cash, 0.03 by Credit Card, 0.08 by Mobile Payment. ● Member could inquire their ordered **Shanghai Disneyland Resort Tickets** online. - Please refer Page 4 to show ordered list of "**My Ticket**". **(3.0)** - Press one of the list to show ticket details and QR Code. **(3.0)** ● Member could reserve **Amusement Facilities** and show **Queuing Information** online, including Ticket No, Attraction Name, Queue No and status. **(3.0)** Deducted 1.0 on each mismatch or mistake.	17.0	

App Design Task Descriptions		Max Score	Actual Score
General common design descriptions			
(12)	**APP Screen Rotation Mode Detection** ● The vertical and horizontal user interface design of the APP can be smoothly transitioned. **(1.0)** ● All of the contents on two **Rotation Mode** can be read clearly. **(2.0)** Deducted 0.5 on each mismatch or mistake.	3.0	
(13)	**App Connection Detection** ● Show whether it is currently online or offline. **(1.0)** ● If it is offline, the functions of displaying "**Instant Information**", and "**Member login/Registration**" cannot be executed, and a reminder message will be displayed. **(2.0)** Deducted 0.5 on each mismatch or mistake.	3.0	
(14)	Using Shanghai Disneyland Resort Logo, UI color and style are matched with organizer needs. Deduct 0.5 on each mismatch or mistake.	1.0	
	Total	**118**	