# **UML** class for Message

Siging Xu, Chuanrun Zhang, Christine Chen



# + Message(senderID: String, receiverID: String, content: String)

- + getSenderID(): Sting+ getReceiverID(): String+ getCreation(): Schedule+ getContent(): String
- + setCreation(creation: Schedule): void
  + setSenderID(senderID: String): void
  + setReceiverID(receiverID: String): void
  + setContent(content: String): void
- + toString(): String

+ getTime(): String

# SendMsgListener - mm: MessageManager + update(actionType:String, message: Message): void <interface>> MessageListener

+ update(actionType:String,message: Message): void

### MessagePublisher

- + listeners: HashMap<String, ArrayList<MessageListener>>
- + MessagePublisher(operations: ArrayList<String>)
- + subscribe(eventType: String, listener: MessageListener): void
- + notify(actionType: String, message: Message): void

### MessageSender

- + events: MessagePublisher
- + MessageSender(operations: ArrayList<String>)
- + sendMsg(actionType: String, message: Message): void

### MessageUI

- facade: Facadesc: ScanneruserId: String
- sm: ScheduleManager - mm: MessageManager
- sui: ScheduleUI
- + MessageUI(facade: Facade, scanner: Scanner, userId: String)-
- attachSchedule(msg: Message): void
- + runByRegular(): void - sendByReg(): void
- + runByAdmin(): void
- replyByAdmin(): void
- replyByReg(): void
- sendByAdmintoSome(): void
- deleteMsgByAdmin(): void
- deleteMsgByReg(userId: String): void
- linkSchedule(String: userid): void
- ChooseSchedule(): void
- + saveToFrw(): void

## MessageManager

- + um: UserManager
- chathistory: HashMap<String, ArrayList<Message>>
- commonInbox: ArrayList<Message>
- + MessageManager(um: UserManager)
- + createMessage(senderID: String, receiverID: String, content: String): Message
- + setCommonInbox(commonInbox: ArrayList<Message>): void
- + setChatHistory(chathistory: HashMap<String,

# ArrayList<Message>>): void

- + sendToAdmin(message: Message): void
- + admintoSomeUsers(message: Message): void
- + sendtoAllUser(message: Message): void
- + sendMessage(message: Message): void
- + makeMessageCopy(message: Message): Message
- + deleteMessage(message: Message, ownerid: String): void
- + deleteCommonInbox(message: Message): void
- + getChatHistory(): HashMap<String, ArrayList<Message>>
- + getCommonInbox(): ArrayList<Message>
- + commonInboxToString(): void
- + UserChatHistoryString(userid: String): void
- + AllChatHistoryString(): void
- + getUserEmail(id: String):String