// Adapter class for recycler view

public class SimpleAdapter extends RecyclerView**.**Adapter**<**SimpleAdapter**.**VerticalItemHolder**>** **{**

private ArrayList**<**ReminderItem**>** mItems**;**

public SimpleAdapter**()** **{**

mItems **=** new ArrayList**<>();**

**}**

public void setItemCount**(**int count**)** **{**

mItems**.**clear**();**

mItems**.**addAll**(**generateData**(**count**));**

notifyDataSetChanged**();**

**}**

public void onDeleteItem**(**int count**)** **{**

mItems**.**clear**();**

mItems**.**addAll**(**generateData**(**count**));**

**}**

public void removeItemSelected**(**int selected**)** **{**

if **(**mItems**.**isEmpty**())** return**;**

mItems**.**remove**(**selected**);**

notifyItemRemoved**(**selected**);**

**}**

// View holder for recycler view items

@Override

public VerticalItemHolder onCreateViewHolder**(**ViewGroup container**,** int viewType**)** **{**

LayoutInflater inflater **=** LayoutInflater**.**from**(**container**.**getContext**());**

View root **=** inflater**.**inflate**(**R**.**layout**.**recycle\_items**,** container**,** false**);**

return new VerticalItemHolder**(**root**,** this**);**

**}**

@Override

public void onBindViewHolder**(**VerticalItemHolder itemHolder**,** int position**)** **{**

ReminderItem item **=** mItems**.**get**(**position**);**

itemHolder**.**setReminderTitle**(**item**.**mTitle**);**

itemHolder**.**setReminderDateTime**(**item**.**mDateTime**);**

itemHolder**.**setReminderRepeatInfo**(**item**.**mRepeat**,** item**.**mRepeatNo**,** item**.**mRepeatType**);**

itemHolder**.**setActiveImage**(**item**.**mActive**);**

**}**

@Override

public int getItemCount**()** **{**

return mItems**.**size**();**

**}**

// Class for recycler view items

public class ReminderItem **{**

public String mTitle**;**

public String mDateTime**;**

public String mRepeat**;**

public String mRepeatNo**;**

public String mRepeatType**;**

public String mActive**;**

public ReminderItem**(**String Title**,** String DateTime**,** String Repeat**,** String RepeatNo**,** String RepeatType**,** String Active**)** **{**

this**.**mTitle **=** Title**;**

this**.**mDateTime **=** DateTime**;**

this**.**mRepeat **=** Repeat**;**

this**.**mRepeatNo **=** RepeatNo**;**

this**.**mRepeatType **=** RepeatType**;**

this**.**mActive **=** Active**;**

**}**

**}**

// Class to compare date and time so that items are sorted in ascending order

public class DateTimeComparator implements Comparator **{**

DateFormat f **=** new SimpleDateFormat**(**"dd/mm/yyyy hh:mm"**);**

public int compare**(**Object a**,** Object b**)** **{**

String o1 **=** **((**DateTimeSorter**)**a**).**getDateTime**();**

String o2 **=** **((**DateTimeSorter**)**b**).**getDateTime**();**

try **{**

return f**.**parse**(**o1**).**compareTo**(**f**.**parse**(**o2**));**

**}** catch **(**ParseException e**)** **{**

throw new IllegalArgumentException**(**e**);**

**}**

**}**

**}**

// UI and data class for recycler view items

public class VerticalItemHolder extends SwappingHolder

implements View**.**OnClickListener**,** View**.**OnLongClickListener **{**

private TextView mTitleText**,** mDateAndTimeText**,** mRepeatInfoText**;**

private ImageView mActiveImage **,** mThumbnailImage**;**

private ColorGenerator mColorGenerator **=** ColorGenerator**.**DEFAULT**;**

private TextDrawable mDrawableBuilder**;**

private SimpleAdapter mAdapter**;**

public VerticalItemHolder**(**View itemView**,** SimpleAdapter adapter**)** **{**

super**(**itemView**,** mMultiSelector**);**

itemView**.**setOnClickListener**(**this**);**

itemView**.**setOnLongClickListener**(**this**);**

itemView**.**setLongClickable**(**true**);**

// Initialize adapter for the items

mAdapter **=** adapter**;**

// Initialize views

mTitleText **=** **(**TextView**)** itemView**.**findViewById**(**R**.**id**.**recycle\_title**);**

mDateAndTimeText **=** **(**TextView**)** itemView**.**findViewById**(**R**.**id**.**recycle\_date\_time**);**

mRepeatInfoText **=** **(**TextView**)** itemView**.**findViewById**(**R**.**id**.**recycle\_repeat\_info**);**

mActiveImage **=** **(**ImageView**)** itemView**.**findViewById**(**R**.**id**.**active\_image**);**

mThumbnailImage **=** **(**ImageView**)** itemView**.**findViewById**(**R**.**id**.**thumbnail\_image**);**

**}**

// On clicking a reminder item

@Override

public void onClick**(**View v**)** **{**

if **(!**mMultiSelector**.**tapSelection**(**this**))** **{**

mTempPost **=** mList**.**getChildAdapterPosition**(**v**);**

int mReminderClickID **=** IDmap**.**get**(**mTempPost**);**

selectReminder**(**mReminderClickID**);**

**}** else if**(**mMultiSelector**.**getSelectedPositions**().**isEmpty**()){**

mAdapter**.**setItemCount**(**getDefaultItemCount**());**

**}**

**}**

// On long press enter action mode with context menu

@Override

public boolean onLongClick**(**View v**)** **{**

AppCompatActivity activity **=** MainActivity**.**this**;**

activity**.**startSupportActionMode**(**mDeleteMode**);**

mMultiSelector**.**setSelected**(**this**,** true**);**

return true**;**

**}**

// Set reminder title view

public void setReminderTitle**(**String title**)** **{**

mTitleText**.**setText**(**title**);**

String letter **=** "A"**;**

if**(**title **!=** null **&&** **!**title**.**isEmpty**())** **{**

letter **=** title**.**substring**(**0**,** 1**);**

**}**

int color **=** mColorGenerator**.**getRandomColor**();**

// Create a circular icon consisting of a random background colour and first letter of title

mDrawableBuilder **=** TextDrawable**.**builder**()**

**.**buildRound**(**letter**,** color**);**

mThumbnailImage**.**setImageDrawable**(**mDrawableBuilder**);**

**}**