Data Description

1. Activity.csv

Name	Description
ID	Composed as: SubjectID + Session_number + ContentID + Run-time determined Counter value
SubjectID	6 digits: ID of current subject
Session_number	1-24: session number for current subject
Start_time	Start time of current activity, in absolute timestamps
End_time	End time of current activity, in absolute timestamps
Relative_Start_time	Start time of current activity, relative to system boot
Relative_End_time	End time of current activity, relative to system boot
Gesture_scenario	1: Sit 2:Walk
TaskID	1, 7, 13, 19: Reading + Sitting 2, 8, 14, 20: Reading + Walking 3, 9, 15, 21: Writing + Sitting 4, 10, 16, 22: Writing + Walking 5, 11, 17, 23: Map + Sitting

	6, 12, 18, 24: Map + Walking
ContentID	1: first sub-task 2: second sub-task 3: third sub-task

2. Accelerometer.csv

Name	Description
Systime	Absolute time-stamp
EventTime	Sensor event relative time-stamp
ActivityID	Belonged activity
X	Acceleration minus Gx on the x-axis
Y	Acceleration minus Gy on the y-axis
Z	Acceleration minus Gz on the z-axis
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

3. Gyroscrope.csv

Name	Description
Systime	Absolute time-stamp
EventTime	Sensor event relative time-stamp

ActivityID	Belonged activity
X	Angular speed around the x-axis
Y	Angular speed around the y-axis
Z	Angular speed around the z-axis
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

4. Magnetometer.csv

Name	Description
Systime	Absolute time-stamp
EventTime	Sensor event relative time-stamp
ActivityID	Belonged activity
X	Ambient magnetic field in the X axis in micro-Tesla (uT)
Y	Ambient magnetic field in the Y axis in micro-Tesla (uT)
Z	Ambient magnetic field in the Z axis in micro-Tesla (uT)
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

5. TouchEvent.csv

Name	Description
Systime	Absolute time-stamp
EventTime	Sensor event relative time-stamp
ActivityID	Belonged activity
Pointer_count	1: Single touch 2: Multi-touch
PointerID	0: Single touch; or first pointer in multi-touch 1: Second pointer in multi-touch
ActionID	0 or 5: DOWN 1 or 6: UP 2: MOVE
X	Touch location in X coordination
Y	Touch location in Y coordination
Pressure	Touch pressure
Contact_size	Touch contact size
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

6. KeyPressEvent.csv

Name	Description
Systime	Absolute time-stamp
PressTime	Press event relative time-stamp
PressType	0: Finger down 1: Finger up
ActivityID	Belonged activity
KeyID	Key code
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

7. OneFingerTouchEvent.csv

Name	Description
Systime	Absolute time-stamp
PressTime	Tap event relative time-stamp
ActivityID	Belonged activity
TapID	Tap event ID, starting from 0 Note: -1: touch occurs within the suggestion words list view -2: touch occurs within the Text Edit area

Tap_type	0: first finger up of single tap or double tap
	1: finger down of single tap is confirmed
	2: first finger down of double tap is confirmed
	3: second finger action of double tap
Action_type	0: DOWN
	1: UP
	2: MOVE
X	Touch location in X coordination
Y	Touch location in Y coordination
Pressure	Touch pressure
Contact_size	Touch contact size
Phone_orientation	0: Portrait and no rotate
	1: device rotated 90 degrees counter-clockwise
	3: device rotated 90 degrees clockwise

8. PinchEvent.csv

Name	Description
Systime	Absolute time-stamp
PressTime	Tap event relative time-stamp
ActivityID	Belonged activity

EventType	0: Pinch begins 1: Pinch in progress 2: Pinch ends
PinchID	Pinch events ID, starting from 0
Time_delta	Time difference in milliseconds between the previous accepted scaling event and the current scaling event
Focus_X	X coordinate of the current gesture's focal point
Focus_Y	Y coordinate of the current gesture's focal point
Span	Previous average distance between each of the pointers forming the gesture in progress through the focal point
Span_X	Previous average X distance between each of the pointers forming the gesture in progress through the focal point
Span_Y	Previous average Y distance between each of the pointers forming the gesture in progress through the focal point.
ScaleFactor	Defined as (getCurrentSpan() / getPreviousSpan())
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

9. ScrollEvent.csv

Name	Description
Systime	Absolute time-stamp
BeginTime	Scroll event relative begin time-stamp
CurrentTime	Relative current time-stamp
ActivityID	Belonged activity
ScrollID	Scroll events ID, starting from 0
Start_action_type	0: DOWN
Start_X	X coordinate of first touch down action in the scroll
Start_Y	Y coordinate of first touch down action in the scroll
Start_pressure	Pressure value of first touch down action in the scroll
Start_size	Contact size of first touch down action in the scroll
Current_action_type	2: MOVE
Current_X	X coordinate of current MOVE action in the scroll
Current_Y	Y coordinate of current MOVE action in the scroll

Current_pressure	Pressure value of current MOVE action in the scroll
Current_size	Contact size of current MOVE action in the scroll
Distance_X	Distance along the X axis that has been scrolled since the last call to onScroll
Distance_Y	Distance along the Y axis that has been scrolled since the last call to onScroll
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

10. StrokeEvent.csv

Name	Description
Systime	Absolute time-stamp
Begin_time	Scroll event relative begin time
End_time	Scroll event relative end time
ActivityID	Belonged activity
Start_action_type	0: DOWN
Start_X	X coordinate of first touch down action in the stroke
Start_Y	Y coordinate of first touch down action in the stroke

Start_pressure	Pressure value of first touch down action in the stroke
Start_size	Contact size of first touch down action in the stroke
End_action_type	1: UP
End_X	X coordinate of ending touch down action in the stroke
End_Y	Y coordinate of ending touch down action in the stroke
End_pressure	Pressure value of ending touch down action in the stroke
End_size	Contact size of ending touch down action in the stroke
Speed_X	Velocity of this fling measured in pixels per second along the x axis.
Speed_Y	Velocity of this fling measured in pixels per second along the y axis
Phone_orientation	0: Portrait and no rotate 1: device rotated 90 degrees counter-clockwise 3: device rotated 90 degrees clockwise

Other Data Files

1. If the current session is reading,

Name	Description
Reading1answer	Selected options for the 1st article
Reading2answer	Selected options for the 2nd article
Reading3answer	Selected options for the 3rd article

2. If the current session is writing,

Name	Description
Writing1answer	Input text for the 1st topic
Writing2answer	Input text for the 2nd topic
Writing3answer	Input text for the 3rd topic